# THE ROLE OF AESTHETIC STYLE IN THE VISUAL COMMUNICATION OF CLIMATE CHANGE

Submitted in fulfilment of the
requirements for the degree of
Doctor of Philosophy

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DECEMBER 2015

# Keywords


Aesthetic Style

Climate Change Communication

Cultural Studies

Cultural Analysis

Cognitive dissonance

Consumerism

Counter-Hegemonic

Design Research

Design Thinking

Framing

Graphic Design

Graphic Design Process

Hegemonic

Hyperreality

Judgement

Market-based ideology

Science Communication

Sustainability

Phenomenology

Professional Code

Semiology

Social Marketing

Taste

Visual Rhetoric

Visual Research

Visual Coding

Visual Artefact

# Abstract

Public apathy on the issue of Anthropogenic Climate Change (ACC) is widespread, with more than half of surveyed Australians in denial that it is happening, and similar numbers in the UK and USA denying that humans are contributing significantly to the phenomenon. In this age of rapid technological advancement, the way we experience reality is increasingly mediated, with the role of the visual increasing in importance. While much is known about media influences and strategies such as message framing, there is little in the way of research on the impact of visual communication of such a complex problem. For example, existing studies assume climate change images are representations of objects, whereas how that image is styled can transform viewer experience from simple object recognition to a more complex, critical and emotional one. Others do not study the visual at all, focusing instead on more traditional methods of information translations. The aim of this study was to investigate the influence of graphic design and graphic designers on the communication of ACC messages.

In order to achieve this aim, the study builds knowledge and challenges assumptions in the fields of graphic design, communication, and the social sciences by investigating the relationships between ACC visual communication artefacts, the professionals producing them, and the members of society these visual communicators are attempting to influence. Employing a phenomenological approach, and operating from the perspective of graphic design, three real world ACC visual artefacts were selected, along with the graphic designers of the selected artefacts and audience members from the UK and Australia. Visual analysis and interviews, integrated within a cultural study, provided three major findings. Firstly, aesthetic style was a primary influence in the reception of visual messages by the viewers, and without considering this important rhetorical language, the intended message may be misinterpreted or missed altogether. Secondly, analysis with the new 'Typology of Visual Signifiers' shed new light on how individual aesthetically-styled elements were received when part of a whole visual artefact. Thirdly, the role of habitus in both the encoding and decoding of aesthetic styles contributed to understanding fluid and varied graphic design processes, and to a better understanding of reception of ACC visual communication through the systems of principles viewers use to decode artefacts.

This study contributes new and substantive knowledge to strategies and theories of ACC communication for the academic and professional fields of graphic design, science communication and social science. Given the technologically mediated reality in which the we now live, aesthetic styling is a key influence on how we experience this invisible, long-term issue.

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# Abbreviations and definitions

| | |
|---|---|
| **ACC** | Anthropogenic Climate Change (change in climate that humans contribute to in a significant way) |
| **Aesthetic style** | In graphic design, the giving of form (Tonkinwise, 2011). Visible style applied to a visual element or artefact in order to appeal to taste regimes of viewers |
| **Cultural study** | Approach to data analysis isolating the intentions behind creation of cultural artefacts, the way these artefacts are received, the visual qualities of the artefacts themselves, and their connection to the social world. Also known as analysis of the sites of production, sites of reception, and site of the artefact itself. |
| **Decoding** | Reception and interpretation of message contained in a visual artefact by viewers |
| **Encoding** | Translation of a principal's message by a producer into a visual artefact using techniques of the graphic design domain |
| **Flow** | Proposed by Mihaly Csziksentmihalyi, a focussed state of mental absortion or immersion in an activity |
| **» Forced Flow** | A state of flow deliberately triggered as part of the design process |
| **» Organic Flow** | A state of flow is triggered naturally during the design process |
| **Forced exposure** | Exposure of subjects to objects of study within an articially-constructed and controlled environment. |
| **Hegemonic code** | A set of rules for aesthetic styles that represent the hegemony |
| **Polysemic sign** | A sign that carries multiple possible meanings |
| **Principal** | The authority whose position or message is being established/identified |
| **Producer** | Professional graphic designer responsible for production of a visual artefact |
| **Professional coding** | A way of representing a message using the "hegemonic code" which represents the hegemony |
| **Referent** | An object in reality represented by a sign |
| **Sign** | A semiotic element that is part of, or the whole of a visual artefact |

# Abbreviations and definitions

| | |
|---|---|
| **Signified** | The messages and meanings communicated by a sign |
| **Signifier** | The visual element of a sign intended as a tool to communicate a particular set of meanings |
| **Telos** | In greek philosophy, telos refers to the end, or purpose |
| **Viewer** | Audience member who views a visual artefact |
| **Visual artefact** | A produced piece of graphic design, encompassing print and new media (eg poster, websites, advertisements) |
| **Visual elements** | Individual parts that combine to form a visual artefact, such as images, headings, secondary headings, logos and symbols |
| **Visual communication** | Communication of a principal's message—primarily created by a professional graphic designer—using visual imagery and written text. |
| **Visual rhetoric** | A field that focuses on persuasive images and text |
| **Apocalyptic rhetoric** | Immediate impact, emotional use of fear, threat and/or shock as a method of persuasion <more needed here> |
| **» Comic** | Apocalyptic rhetoric with an open-ended, possibly hopeful telos |
| **» Tragic** | Apocalyptic rhetoric with a fatalistic, predetermined telos |
| **Values-based rhetoric** | Building knowledge and language over time as method of persuasion |

# Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

QUT Verified Signature

SIGNATURE

DATE 8/12/2015

# Acknowledgements

This PhD thesis would not exist without my large support team. Firstly, I would like to thank my team of marvellous supervisors. To Dr Gill Lawson for agreeing to step in as my Principal Supervisor with just under a year to go, and despite our different design disciplines. Your timely and valuable method suggestions and write-up strategies helped steer this research into a rigorous, clear and completed thesis.

To Associate Professor Barbara Adkins who, as my Principal Supervisor (and then Associate Supervisor after retirement from the University), guided this research from the initial scholarship application and research proposal through to the data analysis. While your vast expertise in the sociology field meant I had to read an entire sociology textbook to understand your words, your patient guidance through literature, method and methodology made a significant contribution to the research. Your trust, encouragement, patience and sage direction allowed me to not only expand my skills and knowledge, but to thoroughly enjoy the process.

To my Associate Supervisor Manuela Taboada—the only graphic design academic on my team—you provided key insight and knowledge, and made valuable contributions throughout this research project. In particular, your enthusiasm and insight during data selection, collection and analysis, pinpointing key findings that are significant to our field. The em dashes in this paragraph are my gift to you.

To Dr Jan Green, for patiently and diligently editing every word of this thesis, several times. Your impeccable grammar and keen eye is something I hope is hereditary. We'll get back to you in the family bit, Mum. Thanks also to David Weir for proofreading my final draft.

To Professor Acram Taji, who encouraged me from the beginning to undertake this PhD study. Without your unfailing encouragement and mentorship, I may never have started this thesis, and its completion is testament to your generous, supportive nature.

To all of my interview subjects for your candour and participation. In particular to the designers Diego, Toby and Matt, for graciously granting copyright for the publication of your visual communication artefacts. Without this consent, the research would not have been possible.

To my super-cool family, thank you for financial and moral support during these last three and a bit years. To Mum and David, we know your contribution formally, but thank you also for always believing in me, for supporting me in so many ways, and for providing the vital golden retriever support network. To my favourite sister Jane for always coming through with the Comté (regardless of my location) and for supporting me in all of the odd things I choose to do.

To my fellow PhD chums Michael Marriott and Kaan Ozgun: sharing success, frustration, pain, learning and hamburgers with you was the highlight of this university experience.

Lastly, to my hockey teammates for keeping me sane in the dark times.

# Chapter 1: Introduction

The motivation for, and background of the research project is outlined in this introductory chapter, raising the aim that drove the study and the point of departure in relation to the broader phenomenon under investigation. A brief description of literature surrounding the issue is provided, in particular focusing on the gaps in existing knowledge that this study addresses. Research questions are included, and an overview of the research approach and theoretical perspectives follow. The chapter is concluded with an outline of the structure of each chapter, and a summation of how the research contributes to current thinking across different academic and professional domains.

## 1.1 Overview

While I was working as an Art Director in the music and DVD distribution industry in 2005, a member of the graphic design team asked if we could use less toxic and wasteful techniques for the huge amount of printed and manufactured material that we were producing. The lack of support for implementing a more sustainable approach from within the company, as well as a dearth of readily-available information on more sustainable graphic design theory and processes led to a new direction. This was to undertake a quantitative research project within a Master of Design degree, investigating barriers to sustainability for Australian graphic designers, and what can be done to promote more sustainable graphic design (Green, 2007). One contribution from the research was an Apple Macintosh "Desktop Widget" that continues to provide ready-access information for graphic designers around the world, however a key finding was that for graphic designers to make significant change to the profession, a change in societal structure is needed. Societal change would afford all members of society the paradigm in which to align their individual sustainability beliefs with practice.

What is interesting about this need for change is that graphic designers have the potential to influence members of societies through the persuasive visual communication they produce. As Victor Papanek pointed out in 1971, designers shape products, services and ideas which have a direct impact on both human society and the environment in which they exist. This finding proved irresistible: what was uncovered in the quantitative study required a more intensive investigation into how members of a society might experience these persuasive visuals. In 2012, I commenced this PhD to investigate how the domain of graphic design in turn can contribute to changes in societal structure from the perspective of sustaining the environment.

The study assumed the position of the key authority on the subject of climate change—the Intergovernmental Panel on Climate Change (IPCC):

> *"Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level."* (IPCC 2007)

This position, furthered by the updated report (IPCC 2013) is that anthropogenic climate change (ACC) is happening and that mitigation and/or adaptation of the change is needed. A search of the literature revealed less subscription to the belief that humans are contributing to climate change in Australia than expected, providing impetus for the importance of effective communication of the phenomenon.

At the same time, the rapid advancement of digital media technology has led to the dominance of an even more image-based style of visual communication, yet as Domke et. al (2002, in Joffe 2008) pointed out, we know little about how these visuals affect public reception of messages. Approaching the communication of messages relating to climate change and environmental sustainability from a graphic design perspective allows for new ways of understanding the influence of visual communication.

Unfortunately much of graphic design literature focuses on a more technical perspective, and little theory exists outside the scope of advertising and consumer-based visual communication. Knowledge that does exist, both in the consumer-based sales sphere and outside it, seems to shun graphic design's key language of aesthetic style, focusing more on borrowed academic domains such as rhetoric and semantics from a text or message perspective. This preference for message is reflected in wider studies of public communication strategy, whereby empirical studies focus on the message frame and content, and the strategists creating them, but not the visual language used to promote these messages. When images are considered, research centres on the object represented, rather than the aesthetic style used to represent objects or concepts.

From a sociological perspective, opportunity exists to provide a more complete understanding by granting equal weight to aesthetics as well as to the message enquiry (Bartmanski 2015). Research from a graphic design perspective, which as a profession deals with both these types of rhetorical language, is well-suited to this challenge. The literature review commenced as an investigation into what theory surrounds the communication of anthropogenic climate change (ACC) and other types of phenomena, what theory surrounds the perceptions of ACC in society, and what contribution graphic design and visual communication can make.

## 1.2 Research approach

The aim of the study was to investigate the influence of graphic design and graphic designers on the communication of ACC messages. Literature surrounding the communication and perception of climate change is abundant, and these studies contribute to the formation of many important strategies for communication, with the proposed effectiveness of each type of strategy, or theory, dividing thought. The translator for many of these strategic messages is a visual artefact, created by a graphic designer. Examples of these visual artefacts could be posters, advertisements, websites or book covers. This study focuses on this particular juncture in the ACC communication relationship between message creators and members of the intended audience.

A relational focus is key to the communication of ACC, because the perceptions of these visual translations is not well understood. This raises questions about the assumed effectiveness of certain types of strategic message on the viewer audience. For this PhD study, the lack of research from a graphic design perspective means theory must be built to provide a basis for further studies. The overall lacuna in knowledge can be divided into three areas that need addressing to enhance understanding of the way visual aspects of climate change communication can influence viewer experience.

Firstly, we need to know what visual artefacts exist in the communication of ACC messages. An understanding of what type of messages, and what their visual qualities are will help to translate the aesthetic style that designers use into a visual language for rigorous discussion of the phenomenon. Secondly, we need a better understanding of how these visual artefacts are produced by designers. While there is much theory on the design process from a broader disciplinary perspective (such as the design of objects), little is known about the specific creation of persuasive visual artefacts which is the domain of the graphic designer. Lastly, the experience of the viewer in the reception of ACC visual artefacts is a rare topic for empirical study.

These three main gaps in our understanding of the influence of graphic design on ACC communication are the basis for the following research objectives:

1. Develop a typology of existing ways in which visual communication of ACC has been presented with reference to the approaches to—and qualities of—ACC communication evident in the design.
2. Document and analyse the processes and practices employed by designers in producing these kinds of communication.
3. With the same cases, investigate the experiences and understandings of the communication from audience members.

In order to address these objectives, the study was guided by the following research questions:

1. What types of visual communication approaches are evident in current ACC visual communication artefacts?
2. What priorities, dispositions, and practices are employed by designers in producing this kind of visual communication?
3. How are visual communication approaches experienced and understood by audience members?

These research questions point to a cultural study, which is an examination of a cultural artefact, how it was created, and how it is experienced by human actors. The examination of the relationships between the artefact actor and the human actors is approached from a phenomenological perspective, whereby individual experience of a real-world phenomenon is studied, rather than common thought or experience of that phenomenon. The experiences of the viewer actors were gathered through a reconstructed instance of the case of ACC visual communication, while the producer actors described their production experiences. The examination of the artefact itself required development of a new methodology to provide a typology of the visual language of aesthetic style for discussion, based on rhetorical and semantic theory.

While some may consider motion picture productions such as "An Inconvenient Truth", or the variety of television advertising campaigns to be key types of ACC visual communication artefact, the role of a graphic designer in production of these artefacts is a small part of a much larger team. The graphic design approach for this study was an in-depth investigation of the designer that produced the whole artefact, and a detailed examination of the artefact itself. The nature of this investigation required a definition of visual artefacts to sit strictly within the confines of the graphic design domain. This also allowed for reproduction of the visual artefacts for use in the investigation of the reconstructed viewer experience. A further explanation of this definition can be found in the methods section.

The inquiry was restricted to English-speaking actors as matches the researcher's cultural origins as an English-speaking Australian citizen. The study broadened from Australia to the United Kingdom and to the United States of America as sites for investigation during literature review and data selection, in line with the international origin of some of the visual artefacts, and reflecting the global nature of the ACC issue.

The next section provides a brief outline of how this research study progresses through the structure of each of the thesis chapters.

## 1.3 Thesis outline

The next chapter is the literature review (*Chapter 2: Literature Review*), containing a more in-depth investigation into current thinking and research in and around the study's research questions. Approaching the problem from the perspective of the apathy and denial that may lead to inaction on the ACC phenomenon, the review follows a path through communication theory, design theory and the societal context in which these types of communication exist, before narrowing to the contribution to these contexts that graphic design makes.

The methodology chapter (*Chapter 3: Methodology*) progresses from discussion in the literature review about the issues surrounding ACC and its visual communication, to the best approach for research into the issue. This chapter also outlines the research design, and discusses how the methodological perspective directs investigation to the three key sites of the phenomenon to best answer the research questions, and through them, the aim and objectives of the study.

Further detail of the research design is outlined in *Chapter 4: Methods*, in particular the theoretical selection of the visual artefacts and participants in the three sites of investigation of the cultural study. This chapter moves from selection to collection of data, detailing the instruments and the types and purposes of questions, to the conditions under which they were deployed. Discussion on analysis follows,  and concludes with the ethics under which the study operated.

The thesis then turns to the results (*Chapter 5: Results*), which describes the results of analysis, with brief summaries of their relevance to the study. The first two sites, those of the visual artefact and of production, provide key backgrounds to the foreground of the relationships between the viewer audience and the visual artefact. These results are then discussed and interpreted in the next chapter.

*Chapter 6: Discussion* focuses on how these visual artefacts were produced and received by the human actors in the study. Firstly focusing on the producers of the artefacts—the graphic designers—from the perspective of their beliefs and dispositions. Discussion then moves to how the aesthetic style of the visual artefacts influenced the experiences of viewers in relation to their own set of beliefs and dispositions. This section draws together the meanings created by the viewers in relation to the qualities of the visual artefacts, and the factors that influence them.

The final chapter (*Chapter 7: Conclusions*) brings the analysis and discussion back to the research aim and objectives, and draws conclusions on how this aim was fulfilled. The significance of these results is highlighted, and the limitations are acknowledged. Finally, recommendations are made for further study in this important area of sociological, scientific and design inquiry.

## 1.4 Significance of study

This PhD study, which focuses on designed visual artefacts communicating ACC, how they are produced and how they are experienced, makes key contributions to several academic and professional fields. The study contributes to the growing body of knowledge in the graphic design domain for academic theory that is specific to, and originates from graphic design. In particular, it allows the language of the graphic designer—aesthetic style—to transcend the perception of a shallow, surface consideration, and emerge as a key influence in the experience of intended audiences. Existing sociological theory also benefits from this aesthetic perspective, and a more complete understanding of this type of communication results. Disciplines surrounding this complex problem, such as Communication (particularly Science Communication) also benefit through a better understanding of how aesthetic style contributes to experiences and understandings. This study now turns to *Chapter 2: Literature Review*.

# Chapter 2: Literature Review

## 2.1 Introduction

This chapter investigates the overall problem and its key contributors that this research study investigates. Major themes in existing knowledge are discussed and, in some cases, expanded further throughout this PhD manuscript, relative to the contexts of methods, methodology, and discussion of results stretching across different domains and disciplines.

The review commences with literature surrounding the public response to anthropogenic climate change (ACC). Factors contributing to a lack of response to this problem are investigated, highlighting the reactive conditions of denial and apathy seen in the literature. Public communication is examined as a key contributor, and the societal context in which this communication exists complements the section. Focus then narrows to the domain of graphic design and the contributions it makes to translating these public communication strategies to the individuals who operate within societal contexts, and gaps in knowledge across the graphic design, communication and social science fields are exposed.

These lacunas are summarised and corralled into three sets, at which point they become key opportunities for advancing knowledge in little-understood areas. These opportunities are the objectives of the research, and are each addressed by the three research questions and form the basis for the research study.

## 2.2 Society and Anthropogenic Climate Change (ACC)

An abundance of literature supports the proposition that ACC is a major threat to continuation of human society in its current form. The timing of this research study is critical for the optimal communication of the implications of the latest edition of a key resource, the fifth assessment of working group 1(AR5 WG1) from the United Nations Intergovernmental Panel on Climate Change (IPCC) in 2013. The AR5 WG1 report stated that:

> "*Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.*"
> (IPCC 2013, 2)

And:

> "*Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.*"
> (IPCC 2013, 13)

Many authors suggest that we are at a revolutionary junction in human history, with the dual phenomena of the onset of the digital era and the crisis of ACC placing us at the dawn of a paradigm shift on a scale comparable to the Industrial Revolution some 200 years ago (Giddens 2012; Manzini 2010; Shove 2010a; O'Neill and Boykoff 2011; Hulme 2010a; Giddens 2009; Fry 2009; Greenfield 2008). Erik Assadourian, referring to a 2009 Massachussetts Institute of Technology report, states:

> *"...even if all countries stuck to their most ambitious proposals to reduce greenhouse gas emissions, temperatures would still go up by 3.5 degrees celcius. In other words, policy alone will not be enough. A dramatic shift in the very design of human societies is essential."* (Assadourian 2010, 4).

Despite good saturation of information, society's response at this pivotal moment in human history is inaction, the continuity of the status quo. Evidence suggests that Australia will be one of the worst countries affected, yet is the highest per capita emitter of all OECD countries (Leviston and Walker 2012; Garnaut 2008). Research suggests that this inaction can be attributed to two types of response: denial and apathy. (Washington and Cook 2011; Diamond 2005; McKie and Galloway 2007; Tonkinwise and Lorber-Kasunic 2006; Stewart and Lorber-Kasunic 2006; Shove 2003). In an ongoing CSIRO study into attitudes on climate change, 81% of Australians surveyed agreed that climate change was happening (up from 77% in 2011), yet more than half were not worried about the implications, and only 47.3% attributed the change to anthropogenic influence (Leviston and Walker 2011a, 2011b; Leviston et al. 2014). Results from the United States of America (USA) and the United Kingdom (UK) were similar, with only 48% subscription to ACC in the USA (Lieserowitz et. al 2015), and 37—48% in the UK stating subscription to a survey question with slight semantic difference (Capstick et. al 2015). Many have taken these findings to be suggestive of apathy and denial on a large scale, which, according to the ongoing CSIRO study, is increasing.

Another conclusion the report finds is that respondents' attitudes about who or what is causing climate change are less important predictors of behaviour change than "...how important climate change is perceived to be, how personally relevant it is, and feeling a moral and ethical responsibility to act." (Leviston and Walker 2011b). This supports calls from the academic and scientific community to move away from communicating scientific information about the causes and possible outcomes of the issue with the assumption that changing attitudes leads to a change in behaviour, to a more targeted framing of solutions, contributions and adaptations (Tonkinwise 2011a; 2011b; Washington and Cook 2011; Morton et al. 2011; Brulle 2010; Nisbet 2009; Shome et al. 2009; Foust and Murphy 2009; Joffe 2008). For example, a significant change in the results occurred when a question regarding the causes of climate change was semantically altered from "*humans are largely causing it*" to "*humans are contributing significantly to it*" This suggests an opportunity for more informed consideration of the framing of communication on this issue.

Despite semantics, the CSIRO studies highlight society's attitude towards the ACC crisis, with inaction the response for more than half of all respondents. This document now turns to two groupings of factors that may influence ACC denial and apathy: public communication and the contexts of society in which communication operates.

## 2.3 Communicating to the public

### 2.3.1 Factors that may contribute to climate change denial

In a review that focuses on ACC denial, drawn largely from climate change literature, denial is discussed in many different dimensions. Key themes under which denial has been discussed include two broad types: denial understood in terms of emotional responses, and alternatively as denial understood in terms of rational responses. This section outlines the attributes of each type of denial, then examines the important contributions that visual communication can make to triggering denial response within these two types.

#### Emotional denial

Psychoanalysis views denial as *"...an unconscious defence mechanism for coping with guilt, anxiety or other disturbing emotions aroused by reality."* (Cohen, 2001 in Washington and Cook 2011, 2). In particular, the emotions of fear and disgust as a trigger recur in much of the literature surrounding denial, the communication of climate change, and the influence of the designed visual.

> *"Such statements suggest that emotion, including fear, plays an important role in denial. More research about the emotional elements underlying the denial of climate change and its human connections is needed; it would help in the design of more effective ways to communicate about climate change."*
> (Gifford 2011, 296)

Fear, one of the six 'basic emotions', identified in psychology and anthropology theory (Greenfield 2008), can result in avoidance and denial in order to relieve the uncomfortable, negative emotion. Another basic emotion targeted by some threat appeals is disgust (remaining basic emotions are surprise, anger, happiness and sadness), which can result in nausea, recoil, and a clinical approach to avoidance of the triggers. These two basic emotions are discussed as emotional factors of denial.

#### Public communication strategy: threat appeals

Modern communication and public relations strategy often targets fear and disgust in communication of public issues (Donovan and Henley 2010). The emotion of fear is specifically targeted using social marketing's 'threat appeal' strategy, also known as a 'fear campaign', which aims to preserve, promote and improve public health through methods of

emotional persuasion using vivid imagery. Notable examples are campaigns targeting the wearing of seatbelts, smoking cessation and heart health (Donovan and Henley 2010; Joffe 2008). While many of the authors on climate change communication advise this approach (Donovan and Henley 2010; Brulle 2010; Nisbet 2009; Shome et al. 2009; Foust and Murphy 2009), others suggest it may have instead contributed to the overall lack of behavioural response to the climate change issue (Tonkinwise 2011a; Brannigan 2011; Corner and Randall 2011; Lakoff 2010; O'Neill and Nicholson-Cole 2009; Joffe 2008).

The hoped-for response to fear in threat appeal campaigns is that the individual will reduce the threat in order to reduce the negative emotion, using techniques such as 'problem avoidance' and 'problem removal'. While this is successful for the simpler issues listed above, problem avoidance for climate change issues suggests denial. A Norwegian study reinforced this proposition: subjects tended to avoid thinking about ACC as a method of avoiding feelings of 'helplessness' and 'guilt' (Noorgaard 2003, in Washington and Cook 2011). Hélène Joffe noted that much of the empirical study into the success of threat appeals ignored the evidence that fear can interfere with attention and retention of message (Lazarus 1980, in Joffe 2008), and that the empirical research that does show negative impacts is quite dated (Joffe 2008). An empirical study building on earlier studies of Lazarus and others found that, without persuading individuals of their vulnerability to a stated risk, provoking fear through threat appeals was unlikely to result in a different behavioural response (de Hoog, Stroebe and de Wit 2005). While this study focused on a simple health-related risk communicated verbally, the findings help point to the need for an empirical approach to investigating communication strategies for ACC.

Gemma Regniez and Sarita Custead (2011) outlined several large-scale campaigns on ACC from the United Kingdom, and noted common themes from their descriptions. Further, they interviewed a selection of what they termed 'leading communicators': communication directors and chief executives of various government, non-government organisations and corporate communication firms. While this approach contributes to the growing body of knowledge by addressing existing examples of ACC communication, it neither approached individual experience nor aesthetic style of the message, and interviews were with high-level strategists rather than the actual producers of ACC communications. This assumption about producers of ACC visual communication is also highlighted in a study into news media (Lester and Cottle 2009) that positioned journalists as the producers of visuals, highlighting a need for better understanding of ACC visual communications encompassing a broad approach.

An example of an ACC threat appeal covered in the Regniez and Custead study (2011) was the UK's *Act on $CO_2$* campaign, a television commercial based around a father reading to his child at bed time from an illustrated children's book. The story unfolded in 'far-off land', where in an apocalyptic manner, the characters floated helplessly in a flooded city or cried animated

tears due to heatwaves and evil $CO_2$ made by the 'grown ups' was causing all the problems. The ad was withdrawn due to complaints that it was 'unnecessarily scary', and also had critics from climate change communication specialists, who suggested that *"...using fear to motivate behavioural changes was not supported by the available empirical evidence (e.g. Hoog et al., 2005)..."* (Corner and Randall 2011, 1006). It should again be noted that the empirical evidence quoted by these specialists studied a single fear-arousing communication regarding personal health, made verbally in an interview situation, rather than one focusing on the impact of the visual (This study is discussed in the *Rational Denial* section of this chapter). Despite this, other studies point to threat appeals as a strong factor in creating the types of fear that may result in denial (e.g. O'Neill and Nicholson-Cole 2009).

The second basic emotion discussed in this document as a target of threat appeals is disgust. It is usually triggered by exposure to body waste, putrefaction and death (Rozin and Fallon 1987, in Joffe 2008), with reactions including nausea, recoil, 'looking away' and taking offence, which seems counter-intuitive when the idea is to engage individuals, hold attention and inspire change. In addition, Bourdieu (1984) argued that particular aesthetic qualities of works can produce diverse and even contrasting responses on the part of different social groups, suggesting that a relational approach is needed in order to understand the qualities of both the message and the viewer in responses evoking disgust.

Disgust can also be used as a method for helping enforce group membership, in particular as a method for creating out groups—those who do not belong (Greenfield 2008). Greenfield proposes Hitler's Mein Kampf as a good example, where the anti-semitic content was phrased in terms of disgust, triggering the types of responses (recoil, looking away) seen among the populace in Nazi Germany to the brutal genocide of the Jewish population.

> *"... you don't get angry with putrid food—you just have to destroy it as quickly as possible with minimal fuss. Hence the most appropriate retaliation isn't a fight in which the enemy is killed, but a cold-blooded campaign as a result of which they are 'exterminated', as in a plague or pandemic"* (Greenfield 2008, 227)

By framing environmentalists, scientists and other proponents of newer, more sustainable ideologies as members of an extreme out-group, members of denier groups dismiss or ignore facts and evidence with the same attitude one would address putrid food, or a pandemic. Moreover, Greenfield explains that treating new ideologies—such as those surrounding mitigation and adaptation to ACC—as some sort of 'mind virus' can result in a deliberate 'closing of the mind' to ensure protection (Greenfield 2008). This points to a need for more careful considerations of in and out group theory in the communication of ACC.

Despite arguments to the contrary, the targeting of fear and disgust using threat appeals is argued by some theorists as a necessary way to provoke a better response. Foust and Murphy's frame analysis study into apocalyptically framed rhetoric (2009) argues

that apocalyptic discourse is often present during large changes in human communities (Brummett 1991), but that some types of threat appeal frames are better suited to inspiring change than others. Using two rhetorical variables, Foust and Murphy present two types: comic apocalyptic rhetoric, where hope exists that intervention could prevent catastrophe; and tragic apocalyptic rhetoric, where there is resignation to a predicted, unchangeable ending. Threat appeals using comic apocalyptic rhetoric were distinguished as the more successful frame.

This type of framing is supported in Brulle's argument that threat appeals do not necessarily result in denial, providing there is some form of informative message about actions that can help mitigate the disaster (2010). He uses a similar division of type as Foust and Murphy, titling the tragic frame as a 'threat message' and the comic frame as a 'challenge message'. Brulle's position however, is that an elite-led, top down dissemination of information is not the right approach, rather that widespread global action would more likely be stimulated by discussion within civil society: ie outside the modernist influence of the market and of the state.

These types of emotional denial and the mechanisms that contribute to it require further investigation, in particular the variations of framing of threat appeals, the influence of aesthetic styling in triggering emotional reactions, and the possible dysfunction of elite-led communication strategies. The onset of what has been termed the digital age provides interesting new ground for the realisation of these possibilities and will be discussed in a more thorough, contextual sense in its own section later in the document. Focus moves now to a less emotional and more rational form of denial.

### Rational denial

Rational denial is seen as occurring not solely as an emotional response, but as a more cognitive one, as a response to either conflicting beliefs, or as a reasoned decision. While Colborn (2007) explains that no decision is entirely rational, rather a result of reason and emotion combined, some decisions toward denial are based more cognitively than emotionally.

Morton et. al (2011) argue that people are generally not receptive to uncertainty, and reluctant to alter behaviour based on uncertain information. This is a problem in the communication of scientific information, as scientific method is based on probability rather than certainty. Translating mostly invisible, complex, long-term climate change predictions with uncertainty to a non-scientific audience can lead to what is termed cognitive dissonance denial. Cognitive dissonance occurs when two or more opposing understandings are held at the same time. If the evidence is not compelling enough for the pre-existing beliefs to be changed, then denial of the newer belief is the next available option to relieve the discomfort of those conflicting beliefs or understandings (Washington and Cook 2011; Weinschenk 2011).

Discussed similarly as "fetishistic split" by Moser and Sayler (2015), this scientific uncertainty can also foster other rational reactions. When attempting to evaluate truth in information, Winkielman et al. (2003) proposed that people turn to social consensus to judge the truth of the information. This tendency is important to note in the CSIRO findings concerning the 8% of surveyed Australians who disagree that climate change is happening (Leviston et al. 2014). The survey found that those 8% believed that almost 50% of Australians agreed with them. All other respondents also overestimated the population of the group that do not believe climate change is happening, which is a particular attitude that existing ACC communication is not addressing.

Sociologist Evatar Zerubavel notes that the public form denial takes is silence, and that each individual's denial is complemented by other individuals' denial. The more participants in the 'conspiracy of silence', the more intense the silence becomes. This is especially noticeable in response to a frightening reality. The example Zerubavel gives is the denial by European Jews of reports of Nazi massacres as Hitler's 'Final Solution' unfolded, because the reality was too frightening to believe. (Zerubavel 2006, in Washington and Cook 2011). As climate change is also a frightening reality, investigations into individuals' silence on the subject comprise another area ripe for investigation.

Another aid to rational denial to emerge from the literature is journalistic commitment to reporting 'both sides of a story'. Using this model, even weight is given both to arguments premised on denial and those based on scientific consensus. This encourages approaches to the issue that espouse a rationality oriented to weighing up both sides of the argument rather than one that responds to substantial consensus in relation to ACC on the part of climatologists. For example, 97.5% of climatologists agreed in 2009 that "human activity is a significant contributing factor in changing mean global temperatures" (Doran and Zimmerman 2009, in Washington and Cook 2011, 8). This contrasts with findings from a study of a broad cross-section of Australians more likely to have based their responses to ACC on mainstream media. Conducted by CSIRO, this study found that only 47.3% of respondents agreed to a semantically-similar question (Leviston et. al 2014).

In their single-issue study on responses to a verbally-communicated threat appeal, de Hoog, Stroebe and de Wit (2005) found that subjects tended to appraise the threat by looking critically at the content of the message, rather than accepting the conclusions and recommendations of experts. The subjects would look for inconsistencies that helped prove their particular bias towards the issue. De Hoog et al pointed to ample evidence that subjects were more critical of an issue that is highly threatening to them personally, than they were of issues that threatened them less. This study again raises important questions for the highly threatening issue of ACC, particularly a more in-depth investigation of responses to visually communicated ACC.

### 2.3.2 Factors that may contribute to climate change apathy

Where denial is an active, conscious response to the climate change problem, apathy can be seen as a lack of response, a 'business-as-usual' approach. The most highly-rated descriptor of emotion from the second CSIRO report for all respondents was 'irritation', which was more highly-rated than anger (rated second-highest), fear or other, more compelling emotions (Leviston and Walker 2011b). Among those who believe that ACC is happening, fear is the highest indicator. This may indicate an emotional difference between the two opposing groups that bears further, qualitative investigation. The researchers also noted that "*The most strongly related emotions were negative (irritated, angry, confused), but overall, respondents did not indicate strong emotions at all.*" (Leviston and Walker 2011b). A possible cause for this reaction is 'emotional numbness', which can occur after repeated exposures to a worrisome and emotionally draining issue (Shome et al. 2009).

Several factors may influence an apathetic response to ACC, such as emotional numbness as described above, but also the influence of the prevailing market-based ideology (including the subset of consumerism) and an overall lessening of empathy and concern for the natural world as a result of what is termed 'the digital revolution'. While the CSIRO research identifies key patterns of response to the issue of ACC, the next section discusses market-based ideologies and the digital revolution as context for the patterns of responses and the mechanisms that generate them.

## 2.4 Context of society

### 2.4.1 Market-based paradigm

A market-based ideology is founded on the idea that to maximise return on investment, continuous economic expansion is required (Brulle 2010). In this model, humans are separate from nature, which exists solely for their exploitation in the creation of wealth (Bell, 2006). Nature is seen as an out-group, a frame that media representations involving rhetoric and visual communication can unwittingly (or purposefully) perpetuate.

While there is some movement towards sustainability within market forces, such as the World Business Council for Sustainable Development (WBCSD) (Boykoff 2011), much of the literature concludes that the market-based ideological context can't support the changes that need to occur for mitigation of ACC (Brulle 2010; Dispensa and Brulle 2003; Washington and Cook 2011; Gifford 2011). Brulle also concludes that an elite-led, 'one-to-many' dissemination of information is not the appropriate arena for public discourse on ACC issues, but that a 'many-to-many' styled discourse within civil society is likely to produce a better response (Brulle 2010; Boykoff 2011).

A causal link has been identified between those who support a free-market worldview and rejection of science, specifically, climate science (Lewandowsky,Gignac and Vaughan 2012). A key result of the quantitative studies carried out by the study is that this rejection can be successfully countered by understanding the consensus in climate change science. Effectively, better communication of this particular phenomenon could result in more acceptance of ACC. Two new studies have developed this finding that public perception of consensus among the scientific community was linked to public acceptance of the science surrounding climate change (van der Linden et al. 2014; van der Linden et al. 2015). The studies investigated communication of the figures arising from content analysis study by John Cook and others at the University of Queensland that echoed earlier findings of a 97% consensus in published scientific papers (Cook et al. 2013). The studies empirically furthered the proposition that scientific consensus was a gateway belief for acceptance of the ACC science, and found that communication of this concept through pie graphs to be 'particularly useful'. This study made its findings from a forced exposure of respondents to test graphics, viewed within the frame of university scientists, the most trusted source for ACC information (Leviston et al. 2014). While these findings open new ground in how to communicate important ACC messages, this study exposed a need to investigate how these theories of communication are being deployed and received in designed real-world examples. A key example is mentioned in the two studies: the website which communicated this consensus in partnership with Cook, titled *The Consensus Project* (SJI Associates and Cook 2013).

George Lakoff states that particular ideological language activates that ideological system. In addition, neural pathways become stronger the more they are activated, supporting the view that repetition of market-based rhetoric also may strengthen the neural circuits towards that same ideological worldview (Lakoff 2010; Brannigan 2011). Erving Goffman's studies of ideologies, or 'cultural worldviews' using frame analysis also identified the use of language to support these ideologies (Brulle 2010). Considering the hegemonic frame of free market capitalism has been shown to relate to denial of ACC, the language of persuasion used in the media is of key consequence.

> *"It is often the case that those deemed as permissible discourses have remained encased in the logic of neoliberal late capitalism."* (Boykoff 2011, 4)

For example, arguments from ACC denial groups are often based on economic rationality rather than science, supporting the conservative semantic 'business as usual' argument, with some levels of success. However the types of calculations used for economics are retrospective, and are not applicable for the type of complex, future long term problem that ACC presents (McKie and Galloway 2007). Semantic framing and rhetoric must be investigated to ensure future communication is not mistakenly perpetuating an ideology that supports continuation of the status quo.

Framing and rhetoric can play a key role in large-scale changes in society. The type of rhetoric used in the hegemonic frame pictures the world as an ordered system (Burke, 1954 in Brulle 2010). To challenge this frame, Brulle suggests a 'rhetoric of confrontation', where the supposed ordered system is problematised by picturing it with 'negation, dissent and corrosion'. This stage is followed by a period of conversion-styled rhetoric, and then finalised with the realisation of the alternate worldview as the dominant frame (Brulle 2010).

These languages and logics are discussed in the literature in terms of written or verbal persuasion, but there is little discussion in ACC literature of the visual language and how it may also be perpetuating certain ideological frames. The review now turns to studies that do focus on visual methods of persuasion, that sit within the market-based paradigm.

### Visual Research in a market-based paradigm (Visual Rhetoric)

Rhetoric, as defined by Aristotle, is *"...the faculty wherein one discovers the available means of persuasion in any case whatsoever."* (Scott and Batra 2003, 19). The study of rhetoric is based on understanding the audience as well as their cultural context, and then adapting the message accordingly (Scott and Batra 2003). Kenneth Burke (1996) expanded on this by explaining rhetoric to be the use of symbols as persuasive elements to achieve a motive. An investigation into empirical research within the field of visual rhetoric identified a pattern whereby research concentrated on the responses of 'consumers', as opposed to responses of citizens and society (Kenney and Scott 2003). This type of research also restricts visual communication to the confines of market-based ideology, which has important implications when the object of ACC visual communication is to foster ideological change.

Despite this shackling of research to market-based ideology, some studies do much of the groundwork required to understand the nature of the visual communication of ACC. McQuarrie and Mick's *taxonomy of the visual rhetorical figure* (1996) defines examples of advertising in the terms usually applied to verbal, thereby allowing the large body of established theory of verbal rhetoric to be applied to the visual. This work is furthered in Phillips and McQuarrie's (2004) *new typology of rhetoric in advertising*. While these classifications serve as good examples of rigorous method, and as a base for further typological classification, the analyses are based on advertising and consumer processes and outcomes, rather than the more complex understandings needed for ACC visual communication. This consumer-based perspective also applies to single-issue, individual problems, as opposed to the more collective and complex problems posed in the discourse about ACC. While visual rhetoric has mostly been appropriated for consumerist design, some studies point to the use of rhetoric and semiotics for ACC visual communication design.

Lynda Walsh (2015) proposes that rhetoric forms relationships between the realities of politics and the ideals of philosophy. She sees ACC as having developed into a political problem, rather than just a scientific problem, and suggests some paths forward for

research. In particular, the semiotic approach, where the researcher works 'up' from the signs and symbols themselves to their rhetoric allows for systems of codes, which can determine how politics and hegemony influence understanding of these visual artefacts. Other approaches to visual research are found in the section titled *Contributions of Graphic Design*. This section further investigates other influences on individuals and society towards which this communication is aimed.

### 2.4.2 The changing human psyche in the digital age

The onset of the digital age, where computers and the internet have come to dominate our experience of the world, brings with it a wide array of positive and negative attributes. While opportunity can be found in an unprecedented level of connectivity to other users, there is much to suggest that these new virtual realities are altering the human psyche. These new contexts may result in the development of wiser, newer approaches to ACC communication given the rapidly changing environment that new technology provides.

Many of the calls to action on ACC within literature are based around the idea that the traditional top-down, elite or expert-led communication is having a lessening impact within public discourse (Brulle 2010; Foust and Murphy 2009; Manzini 2010). Ezio Manzini defines the emerging new paradigm in terms of four adjectives: 'small', 'local', 'open' and 'connected', or the *SLOC* scenario. While the first three adjectives have proved successful in a small, localised way throughout time, the addition of the vast web of networks available through digital technology provides new possibilities for peer-to-peer and 'bottom-up' styled discourse. Brulle maintains that the only avenue for change is through civil connections, as any type of market-based communication reinforces that ideology. For example market-based terminology like 'global village' helps enforce a disconnect from the real, natural world. By encouraging a sense of belonging to a space that has no actual land, our loyalty is divided between the global village, and the real, local ones that we exist within.

Jane McGonigal's book *Reality is broken: Why games make us better and how they can change the world* (2012) illustrates the growing reach of alternative digital spaces. She states that individuals collectively spend 3 billion hours per week escaping reality and playing online, virtual world games. McGonigal suggests harnessing the online gaming community, predicted to rise to 1.5 billion individuals in the next ten years, as a vast, connected problem solving resource, citing gamers' ability to collaborate and work at seemingly insurmountable problems. While this may prove to be a key use of the immediate connectivity that digital technology has enabled, the impact of this type of reality avoidance on the human psyche is not well known. One issue highlighted with online gaming and interaction is that people can become more invested in their online profiles, or gaming avatars than in the real world.

> *"Over time, such performances of identity may feel like identity itself."*
> (Turkle 2011, 12)

Where McGonigal suggests harnessing the power of online users for solutions and adaptations to ACC, the perception of what is real and important may be somewhat skewed by a shift in the perception of reality and what is important to the continuity of that reality.

Neurophysiological studies can provide insight to the impact of gaming and online presence. Videogames can lead to a more reckless disposition, as well as reduced attention spans and possible addiction (Greenfield 2008). However one study found that surgeons who engaged in a few hours of weekly gaming made fewer mistakes in surgery than their peers who did not (Scientific American Mind 2007, in Keegan 2012). Studies on how many hours people spend online are outdated well before they are published, and an increasing number of studies suggests that digital media is responsible for changing 'patterns of brain function' (Keegan 2012).

> *"What is now clear is that every time we perform a task or have an experience – physical or mental – a set of neurons in our brains is activated and messages are transmitted to other neurons. If the same experience is repeated, the synaptic links between the neurons grow stronger and more plentiful."*
> (Keegan 2012, 332)

In this way, it is very easy to entrench fixed habits and behaviours, although it is still possible to change our ways of thinking throughout our lives. This 'neural plasticity' means that our minds are easily shaped to adapt to the situations that surround us (Keegan 2012; Brannigan 2011; Greenfield 2008).

In neuromarketing, associations are created between consumer products and the reward of the sensation of pleasure through the use of Lindstrom's 'somatic markers' (2008). Constant triggering of this unconscious association using this type of visual can lead individuals into automatic behaviour and habits that can prove difficult to break (Lindstrom 2008). Fear of change can be a major source of worry for individuals locked into this habitual behaviour, where the loss of happiness is the perception, rather than the loss of objects or of the ability to participate in a consumerist paradigm. Fear of change is also a major trigger for denial.

### Hyperreality and loss of awe

Manufactured visual communications have become part of our everyday: as far back as 2002, a study found that British children could identify more *Pokémon* characters (animated characters from a television series) than common wildlife species (Assadourian 2010). Jean Baudrillard posed the idea that this over-abundance of information, and of fictitious marketing imagery heavily-loaded with constructed meaning and emotive imagery, can result in confusion between actual reality and its media representations. In this cultural existence, which he termed 'hyperreality', the semiotic sign replaces the actual object, possibly resulting in a loss of awe when real objects are viewed (Harden 2011). This perspective also

challenges assumptions made by much psychological testing of response to imagery, where the basis for the studies has been the idea that visuals are simply representations of real world objects, rather than independent, meaningful objects (Scott and Batra 2003; Scott 1994). Baudrillard is not the only philosopher to describe postmodern consumer society using this type of semiotic discourse, but a focus on these theories raises questions for the context of ACC visual communication.

An anecdotal example of the blurring of lines between the real and the hyperreality inherent within digital technology, is that some people had difficulty interpreting the reality of the planes that struck the World Trade Centres in 2011, as the visual imagery was so similar to video games (Greenfield 2008).

> *"... we have seen the paradox that simulation often made people feel most in touch with the real."* (Turkle 2009, 27)

One of the outcomes of Julie Doyle's (2007) report on Greenpeace imagery was to propose the continued use of imagery of animals and wildlife as victims. While this may have been a successful tactic historically, the hyperreal existence may instead contribute to a lack of recognition of the victimised animal as a part of the viewer's reality. Portraying wildlife and nature without any human representation may also reinforce the out group framing of nature, and contribute to the disconnect with nature that is a key symptom of hyperreality.

### Loss of Empathy

In addition to the impact of hyperreality on the experience of awe, a study has shown a sharp downturn in the reported empathic concern of college students over 30 years to 2009, with a particular drop in the last ten years. This is despite little change in their socio-economic status or other demographic variables over that time, such as racial composition. While no causal relationship is found between this decline and the onset of the digital age, parallels are found in the timing of the decline to the rise in influence of digital technology, in particular the rapid uptake of social media. The study's authors go as far as to speculate that these media are a 'likely contributor' to the decline in empathy (Konrath,O'Brien and Hsing 2011).

> *"Digital connections and the social robot may offer the illusion of companionship without the demands of friendship. We'd rather text than talk."* (Turkle 2011, 1)

Lessening of empathy is an important factor when attempting to use visual rhetoric to encourage a better response to the threat of ACC. A good understanding of the recent, rapid changes in the human psyche will help inform new investigations into the effectiveness of communication and sociological theories based on earlier versions of the human mind.

A final consideration of the implications of the onset of the digital age on ACC communication is the concept of 'technological time'; for example, Heather Menzies' (2005) argument of nature-centred time, social time, and technological time. Nature-centred time is based on the phases of the moon, seasons, day and night and other human experiences such as birth, life and death. Social time is based on the introduction of calendars and clocks, and gives time a linear aspect. Technological time is the newest scenario, where we can receive instant connection and gratification 24 hours a day. This contributes to a disconnect from the past and future as only the immediate present is experienced (Menzies 2005). A different barrier to acceptance of ACC is what is termed the 'ancient brain', which was also concerned mainly with the immediate, present situation (Gifford 2011). This has implications for the perception of a future-based problem like ACC. Foust and Murphy's understanding of apocalyptic rhetoric identifies time as one of the defining variables between the more successful comic type, and the less successful tragic type. Tragic apocalyptic framing uses a shortening of time with a closed end result (or telos), whereas the comic frame has a more open-ended possible future (Foust and Murphy 2009). These influences must also be considered in an investigation of the communication of ACC.

The accounts of apathy and denial and their contexts as identified in the literature have one perspective in common: they focus on the individual and their responses, but not on the nature of the communication they are responding to. We still know very little about the content of climate change communication, a lot of which is highly visual, an aspect missing from contemporary discussion around public responses to, and discourse on, ACC. This review now turns to what is understood of the key role of the visual in ACC communication.

## 2.5 Contributions of graphic design

### 2.5.1 Role and power of the visual

For ACC, a long-term scientific issue that so far has little irrefutable visual evidence (Smith and Joffe 2009), visual communication options are limited, and must compete with a vast array of slick visual communications supporting the market-based consumption of goods and services. Likewise, key answers for ACC mitigation involve a change in 'private and invisible' practice such as the use of energy (Shove and Warde 2002), yet there is little in the way of imagery to help individuals perceive their personal impact on ACC, or spur changes in understanding and action. This section examines the role and influence the visual may have on ACC communication from a western perspective.

To date, a literature review on visual communication has shown that while visual aspects of communication on major issues are understood to be very important, there is little empirical focus on their role in perceptions of ACC. According to Domke et al:

> *"One might expect a major body of social-scientific work to have explored the impact of visual material on the public's uptake of one or other message. Yet empirical evidence concerning its impact is scarce across the social sciences."* (Domke et al. 2002, in Joffe 2008, 1)

People in most countries are exposed to an estimated hundreds to thousands of marketing images per day (Poynor 2006; Assadourian 2010). Access to information on ACC is generally through mass media (Smith and Joffe 2009), which is still the primary source of information through newspapers, the internet, television, social media, radio and magazines (Boykoff and Goodman 2009). An American longitudinal study found that *"...media coverage of climate change directly affects the level of public concern"* (Brulle,Carmichael and Jenkins 2012, 18). The method of delivery for this information has moved from mostly text-based, to image and text-based, and the onset of the digital age has brought with it a sudden exponential increase in access to media and the use of peer-to-peer networking, including the popular rise of infographics, motion graphics, and other data visualisation and animation artefacts. Images induce a more emotional response and path of thinking than purely textual or verbal messages, which induce a more rational, logical thought pattern (Shome et al. 2009; Smith and Joffe 2009). These assessments highlight the importance of the visual in individuals' everyday interaction with media. This leads to the need for an understanding of how people experience these visual communications, and what responses they might evoke.

The capacity of the visual to evoke both rational and emotional responses is documented in fields such as marketing, advertising and psychology. The 'vividness' of visual imagery is a major aid to memory, which Joffe describes as a major influence in an individual's judgement of the message. She relates this to the availability heuristic (Kahneman, Slovic and Tversky 1982) whereby an individual judges an event to be 'frequent or probable' when instances of it are readily available in the individual's memory. For a long-term effect issue like ACC, aiding ease of recall of the issue is of significant importance. Furthermore, western media consumers perceive images as more 'concrete' and less 'conceptual' than textual messages (Luna and Peracchio 2007), suggesting that the role of the visual is key, particularly in targeting the biased critical appraisal of messages by individuals (de Hoog,Stroebe and de Wit 2005). Aesthetic style is a key factor to the capacity of the visual to trigger emotion (Kenney and Scott 2003).

A key observation is that a rigorous typology of contemporary qualities of climate change visuals is missing, yet it is an important first step to further study. Further contributions can be made by understanding the capacity of the visual to evoke both rational and emotional responses.

Two examples of investigations into the qualities of the visual ACC discourse outside the realm of market-based visual rhetoric discussed earlier are Julie Doyle's report on Greenpeace campaigns, and Mathew Nisbet's *Typology of Frames*. Doyle outlined qualities such as Greenpeace's spectacular photographic imagery of wilderness, and the lack of visual evidence of the impacts of climate change (Doyle 2007). She suggests that continued pictorial use of animals and the wilderness as victims is a useful tool, however this does not align with contemporary thought on society's disconnectedness with nature, instead reinforcing the idea of nature as a separate, helpless 'out-group' requiring human assistance (Harden 2011; Bryant 2007; Corner and Randall 2011; Shove 2010b). While a general overview of elements such as aesthetics, content, and iconic tropes was given, alignment with the audience was not well understood. Nisbet's typology used secondary research to identify eight frame types that recur across 'science-related policy debates'. These included nuclear energy, food and medical biotechnology and evolution. The key ingredient missing in the typology in Nisbet's paper is any type of reference to visual, or to climate change communication, however the assumptions inherent in the framing types bear further investigation given its application to the communication of ACC and other scientific phenomena.

Numerous scholars have argued that new social theories need to be built to define and combat the issues surrounding ACC (Tonkinwise 2011a; Latour 2008; Brulle 2010; Joffe 2008). In her work, Elizabeth Shove (2010a, 2010b) explains that ACC is a space where long-standing theories can be debated, and innovation in social theory is needed. Latour also sees the ACC crisis as a positive for the field of design:

> *"This theory of action has arisen just at the moment (this is its really interesting feature) when every single thing, every detail of our daily existence, from the way we produce food, to the way we travel, build cars or houses, clone cows, etc is to be, well, redesigned."* (Latour 2008, 3)

While Nisbet's typology was not developed from a detailed investigation of climate change communication, and both the taxonomy and typology of the rhetorical figure are situated in a market-based consumerist paradigm, they serve as a start point for the building of a much more in-depth approach to framing. This is needed in order to expose existing assumptions and pose new, more challenging questions

### Aesthetic style

Doyle's chronological analysis of Greenpeace images interprets the imagery that Greenpeace has used over time simply as representations of actual objects, and the aesthetics and styling of these images and the types of communication they sit within are not considered in terms of how they are understood by audiences. This is a common theme in empirical research into the visual (for example, Snelders, Mugge and Huinink 2014; O'Neill and Nicholson-Cole 2009; Almquist and Lupton 2009; Lester and Cottle 2009; Doyle 2007;

Linder 2006; Lorenzoni, Nicholson-Cole and Whitmarsh 2007—discussed further in Chapter 3: Methodology), however the styling of visual communications is vital to comprehension, the triggering of one emotion over another, and to the particular behaviour of individuals in engaging with the message:

> *"...communication design, and even more so, fashion – areas of design practice that are especially concerned with styling – are rare foci for research of design."* (Tonkinwise 2011b, 535).

Styling an image changes it from object representation to a piece of visual rhetoric. In other words, *how* something is portrayed is different to *what* is portrayed (Kenney and Scott 2003). The styling of an image is often what can trigger an emotional response, rather than the object or concept depicted within. For example, a photograph of an apple is a representation of an object. A photograph that portrays a shiny red apple composed at eye level on a gingham picnic blanket in a warm yellow light, reminiscent of a summer afternoon, would convey a different type of rhetoric to a decaying green apple photographed on a stone floor in a cool grey light from a high angle. This image then sits within a designed layout accompanied by text and other symbols or images, providing an aesthetic experience for the viewer that may engender different responses based on their individual dispositions. Bourdieu's work on the reception of aesthetic style and logic of practice (Bourdieu 1984, 1992) provides insight here, particularly as aesthetic style choices alone can trigger such basic emotions as disgust or desire.

Tonkinwise asserts that visual communication design is essentially the practice of a type of Bourdieusian analysis. Considering that an individual's taste is based on an unconscious set of developed dispositions, which Bourdieu termed 'habitus', the designer attempts to associate the product or message with a matching level of cultural and social capital of the target audience (Tonkinwise 2011b). The way the designer achieves this association is through the application of aesthetic style based on their assumptions about the taste regimes of the target audience. As this developed 'habitus' appears to be natural and based on values for each individual, communications that do not suit their aesthetic tastes may appear 'unnatural', thereby triggering emotions and reactions not accounted for by the designer of the visual communication.

Bourdieu also problematises the visual in terms of its aesthetic style, discussing the concept that the language of signs has the potential for communication that exceeds the intended communication of message (Loesberg 1993; Folkmann 2009). The aesthetic style can communicate power, for example, or the position of the message author within the structures of hegemony. Bourdieu's (1992) concept of 'systems of principles', or how and by what conditions viewers co-construct the experience of the visual during reception provides a methodological tool for investigation of this aesthetic style communication between designer and viewer.

Morris and Sayler (2014) discuss a project they (prominent American graphic designers) undertook to create a series of photographs to represent ACC. They used a creative process remarkably similar to that which Tonkinwise described. Visiting areas around the world where ACC impacts are measured, they did not document, but instead used an intuitive process, which they described as "a feeling". The intention was to discover the possibility of photographs that went beyond simple illustrative representation into aesthetic and pensive significations of ACC trauma having an impact on audiences.

> *"We wanted to find out if photographs could make us or anybody else more seriously invest in the proposition that climate change is real, urgent and a serious risk to life."* (Morris and Sayler 2014, 300)

This creative project and subsequent essay raised interesting questions surrounding the concept of "seeing is believing", positing instead that seeing is more like knowledge, which is empirical where belief is more aligned with a set of assumptions. In other words, the underlying habitus of viewers helps to construct the belief or non-belief in the imagery and concepts it might represent. Morris and Sayler point out that while many people may know about the impacts of climate change, their belief in these impacts is another matter.

Aesthetic style has been somewhat ill-regarded in literature surrounding design theory and sociology (Buchanan 2001; Papanek 1995; Frascara 1988). Tonkinwise (2011b) illustrates that the appropriation of design thinking for fields such as business not only strips away the aesthetic style aspect, but actively derides it. Dominik Bartmanski (2015) echoes this disdain of aesthetic style, asserting that sociology traditionally preferences text over aesthetic or visual. Even within graphic design, style can be misinterpreted as an approach purely based on trends or fashion, rather than as a key persuasive communication tool. As ACC visual artefacts are created by graphic designers, rather than framers or strategists, this review now turns to the ontology and epistemology of the graphic design domain in light of the role and power of the visual.

### 2.5.2 Outline of Graphic Design domain

Graphic design is a relatively new domain, which has been previously defined as the combination of several different technical fields: typography, illustration, photography and printing (Harland 2015; Triggs 2011). Robert Harland proposes it be defined as the generation of ideas, with technical manifestations intersecting and influencing that core purpose, as well as deploying it (Harland 2011). Similarly, Tonkinwise proposes that designers *"...imagine a future and then materialise it."* (Tonkinwise 2011a). Graphic design has been in existence since humans first made marks to communicate with each other, however the first documented use of the term 'graphic design' is attributed to W.A. Dwiggins in 1922 (Harland 2015). Dwiggins suggested that advertising art was one of the forms of this type of design. However, book and page typographic layout and illustration from the

mid-fifteenth century onwards are considered early examples of graphic design. As printed books emerged around 1450 after the western invention of moveable type printing press by Johannes Gutenberg—examples in Korean culture pre-date Gutenberg's invention—practice surrounding text, image and the composition of these elements began to emerge (Cramsie 2010, Meggs 2012).

In some of the literature on the history of graphic design, different locations spurred differing advancements in graphic design, but a general definition located the emergence of graphic design as a distinct domain in the early twentieth century, with the formation of professional organisations and publications (Meggs,Purvis and Meggs 2012; Drucker 2009). The domain uses the terms 'graphic design' and 'visual communication' as interchangeable, however this manuscript prefers to use graphic design to refer to the domain, and where possible, visual communication for the types of artefacts that are a product of the domain.

Early artistic movements that responded to upheaval in society contributed to modern definitions of graphic design. For example, a main barrier to the mass communication of the revolution in Russia from 1917 was that 50% of the population was illiterate. One response to this issue was the iconic illustrative style of the avant garde artists engaged to produce visual communications, a style which became known as AgitProp (Lavrentíev and Nasarov 1995). Other movements such as Futurism, Constructivism, The Bauhaus, and The International Style contributed to the development of fields of graphic design such as typography, photography and composition (Harland 2015).

Harland states *"Traditionally, industry has required products from graphic design."* (Harland 2015, 88). While Harland discusses this as a superseded model, this industrial viewing of graphic design as a predominantly technical discipline is reflected in some aspects of literature surrounding design and sustainability (Fry 2006). For Richard Buchanan, graphic design research takes its value from the consumerist hegemony: *"In fact, the TOQ program is funded more by private industry than by government—a sure sign of the perceived potential value of the results."* (Buchanan 2001). In other words, the assumption exists that graphic design research is judged as important if it is supported by corporate interest. This industrial view is a flawed assumption, however. Graphic designers are involved, as Dwiggins rightly classed, in many other types of visual communication such as museum design, communication of government or grassroots messages, and taken-for-granted production of safety ephemera such as road and hospital signage and other visual solutions to human needs. An example is the work of American graphic designer Deborah Adler, who took the phenomenon experienced by her grandmother and many others of accidentally taking the wrong prescription medication as reason to redesign the American prescription pill bottle label (Bernard 2005). While this theoretical project—Clear Rx Medication System (Adler 2007)—resulted in a commercially-oriented product, its meaning and purpose was human safety and contribution to society.

Graphic design as a distinct domain is a relatively new academic field. Teal Triggs states that 1983 saw the first academic field recognition: *the First Symposium on the History of Graphic Design: Coming of Age* (Triggs 2011). A literature review by Malkewitz, Wright and Friestad (2003) showed that much existing knowledge is based around techniques and process, and what theories do exist are borrowed from other domains such as anthropology, psychology and sociology (Harland 2015; Davis 2008; Buchanan 2001; Weinschenk 2011; Moszkowicz 2011). One key theory contributing to graphic design practice is Gestalt psychology, which centres around the way individual viewers prefer simplicity, and to group visual items to make sense of them. Other theories such as psychological responses to colour, and semiology are claimed by graphic designers as contribution to practice. Jacques Bertin's 1969 *Semiologie Graphique—The Semiology of Graphics* (Bertin 2011)—is one such example of the application of sociological theory to graphic design. Based around the delivery of information rather than persuasion, this seminal work is a key text for graphic designers engaged in this type of visual communication, and uses the language of semiology to classify visual signs in the development of a sign system, and variables that can be deployed for information delivery with a formulaic methodology.

Robert Harland proposes that investigations from design, instead of traditional investigations for design, can shed light on the many different domains to which graphic design contributes (Harland 2015). By focusing on graphic design practice with the generation of ideas at the core, and technical manifestations of those ideas intersecting in a variable manner, Harland's new model of design provides a different perspective to approaches to the problem of ACC inaction from outside the field of graphic design (Harland 2011). A study of ACC visual communication affords graphic design theory the opportunity to investigate the contributions of graphic design outside the consumerist hegemony, and outside avenues of academic thought, which assume hegemonic service to be the sole occupation of the domain. The study affords other domains a visual perspective to ACC communication that has been studied from other, more high level strategy bases. With the focus on idea generation and aesthetically-styled manifestation of that idea, and on how these designed manifestations, or artefacts, are received by audiences, this review now moves towards studies that exist in and surrounding the graphic design domains.

### 2.5.3 Existing knowledge in graphic design and visual communications

One of the most common themes found in the review of literature surrounding the public response to ACC implications was the repeated calls for approaches to research in ACC communications, with visual communication a particular focus (Domke et al. 2002, in Joffe 2008; Gifford 2011; Tonkinwise 2011b, 2011a; Smith and Joffe 2009; Bostrom,Böhm and O'Connor 2013):

> *"Despite the commonly recognized, in communication research as well as other disciplines, rise and increasing dominance of visual media/communication, communication research has very predominantly remained focused on the use of text/word-oriented methods of analysis and on the analysis of the lexical messages of media. ...rarely has the analysis of visuals or the visualization of the environment been the main focus of analysis,"* (Hansen 2011, 17)

As has been highlighted so far in this review, few approaches specifically address the visual in ACC communications. Those that do—generally from the social sciences—largely ignore aesthetic style, a key element of the relationship between the visual message and its intended audience (van der Linden et al. 2014; Lester and Cottle 2009; O'Neill and Nicholson-Cole 2009; Doyle 2007; Lorenzoni,Nicholson-Cole and Whitmarsh 2007; Linder 2006; Nicholson-Cole 2005). Consumer market-based research has provided insight here, although application of research of this simplistic type of message to communication of the complex and contentious issue of ACC may be problematic (Williamson 1978; McQuarrie and Mick 2003; Phillips and McQuarrie 2004; Scott 1994; Person and Snelders 2010; Pimentel and Heckler 2003). Finally, the literature on aesthetic style revealed that much of the empirical study and resulting thought is generated from, or preferenced towards art, or to other object-based design disciplines (Cozen 2013; Crilly 2010; Markussen 2012; Folkmann 2009; Bourdieu 1984). This section will highlight these types of approach and key examples of each.

Studies that investigate ACC visual communication have suffered from two types of approach to the visual. Firstly, researchers disregarded aesthetic style, instead reducing the visual component to mere representation of object (van der Linden et al. 2014; Lester and Cottle 2009; O'Neill and Nicholson-Cole 2009; Doyle 2007; Lorenzoni,Nicholson-Cole and Whitmarsh 2007; Linder 2006; Nicholson-Cole 2005). Two studies researched viewer perception of ACC visuals (O'Neill and Nicholson-Cole 2009; Lorenzoni,Nicholson-Cole and Whitmarsh 2007) using what is known as Q Method, where participants were given a set of images to arrange and discuss. Images were presented and discussed in terms of what objects were represented by them, rather than by what style messages were depicted. For example, an image of a picnic described thus does not include information on whether it was a mid-20th century, 19th century, or contemporary scene, whether the sky was blue or clouds were approaching, whether it was an image photographed by one of many participants, or a birds-eye view of a couple. While this study provided important understandings in how viewers perceive, it did not approach the types of response that aesthetic style can influence. The van der Linden et al. study (2014), which found in favour of the pie graph as a recommended method of visual communication for scientific consensus, likewise did not approach the aesthetic style of the pie graph in testing individual responses.

The van der Linden et al study (2014), also investigated methods of ACC communication as separate elements, a practice which may have a tenuous connection to real world visual communication. The study placed the ACC visual elements within a larger context of other issues, negating some of the bias that respondents may have had, however the pie graphs were exposed to the participants within a scientific study, with a university scientific logo placed on it. Responses from similar audiences showed university scientists to be the most trusted source for ACC communication (Leviston et al. 2014), and this styling of the pie graph element is likely to have played a part in the participants' reception of the abstract elements.

Even in the approaches outside ACC to existing whole artefacts, research tended to investigate and analyse elements separately. The two studies of rhetorical figure (Phillips and McQuarrie 2004; McQuarrie and Mick 2003) isolated elements that had a rhetorical purpose, investigating their impact on viewer perception and developing key typology and taxonomy from the results. As with Judith Williamson's (1978) approach to decoding advertisements, items selected for discussion and analysis were those with a rhetorical purpose, while other areas, such as decoration, or areas of colour were not discussed in this frame. Although this type of understanding forms a key base of knowledge, viewer habitus may influence which visual elements are more visible or more significant (Schirato and Webb 2004). This means that individual viewers may see and interpret visual artefacts using stimuli not considered from the rhetorical viewpoint. Given the influence of Gestalt psychology on the graphic design domain, and the practicing designer's technical understanding that empty areas are as important an element in composition as active elements, a whole-image graphic design perspective is well suited to research on ACC visual communication.

Where aesthetic style was considered in empirical investigation, preference was given to either fine art (Cozen 2013; Markussen 2012; Bourdieu 1984) or other design disciplines (Snelders,Mugge and Huinink 2014; Person and Snelders 2010; Folkmann 2009). Again, while much can be gleaned from these types of study in terms of aesthetic preference, such as how education levels can influence reception of aesthetic style (Snelders,Mugge and Huinink 2014; Bourdieu 1984), the directly persuasive elements of visual communication differ from the more abstract meanings found in visual art and other disciplines such as music. Person & Snelders (2010) approach aesthetic style, but their study is of objects, and the aesthetic consideration, which may not be the key purpose of the artefact under study, is reduced to a dualistic version of like/dislike. Other studies highlight the coding that aesthetic style can generate in viewers (Snelders,Mugge and Huinink 2014). However communication for objects is seen as a more secondary act, which delivers a fairly naïve approach when applied to specific persuasive goals of graphic design, which uses aesthetic style as a functioning part of its primary purpose.

> *"...design as an act of communication that may contain an aesthetic coding that lets an idea or content of meaning be physically manifested and reflected in different ways—can lead to a more theoretically focused inclusion of aesthetic matters in the process of designing."* (Folkmann 2009, 52)

## 2.6 Summary and implications

This review exposed several key areas across research domains that are lacking empirical research and understanding. These lacunas in knowledge are summarised in this section, and then grouped into a table, from which three key research objectives were developed as a basis for investigation into ACC communication. These three research objectives in turn defined the three research questions for this PhD research study.

Firstly, much published material was found on framing ACC issues in communication. However opinion is divided between a fear-based, or 'apocalyptic' rhetorical approach, and a more careful values-based, or deep framing approach. Non-visual research based on schools of thought on framing has also been used as justification for decisive commentary on ACC visual communication, which has opened the door for assumptions to be made where little visual theory exists. As well, the deployment of this type of strategy is not understood as sited within the graphic design domain, rather it is assumed as the domain of journalists or public communication strategists. A graphic design focus is needed to better understand approaches to ACC visual communication.

In visual theory that does exist on ACC communication, aesthetic qualities and their power to guide experience and understanding in individual responses are not well understood. Given that Bourdieu's (1984) findings pointed to the ability of aesthetic style to trigger such emotions as disgust in viewers, and that disgust is one of the key emotive triggers for denial, investigations into the influence of aesthetic style on the emotive responses to visual artefacts must be addressed.

Aesthetic style may also be a key factor in determining the positioning of the visual communication within market-based ideology, where a top-down approach may not be appropriate for either the message, or the audience that is experiencing an explosion of peer-to-peer communication. This may bear similarity to CSIRO findings that friends and family are the second most trusted source of information on climate change (Leviston et al. 2014). ACC responses tend to point towards a move away from hegemonic ideology, and careful consideration of the language of the visual may be key to ensuring reception of the communication is in line with intent.

Current thinking and empirical study has shown that one way to move viewer perception away from denial and towards ACC acceptance is to communicate the scientific consensus, shown in several content analysis studies on published papers on climate change. A key claim of the study was to provide practical advice for communicators, in that a certain type of visual is likely to be more successful than other text-based options. However the aesthetic style was not considered, neither was the visual a whole example of visual communication existing in the real world. The danger in this type of claim being made without aesthetic consideration is increased when the semantics of the terminology misrepresented the statistic (97% of *climate scientists*, instead of 97% of *published climate papers*), with the possibility of engendering a different response to a real-world artefact.

Individual experience of ACC visuals is another area that is not well understood. Much of the literature on visual communication focuses on the artefact, and does not investigate viewer reception. For example, in an era newly-defined by immediacy of digital time (Menzies 2005; Gifford 2011), where there is a disconnect between past and future as well as a disconnect with nature, the time-based approach of the two different types of apocalyptic-style rhetoric, or the values approach of deep framing may be ineffective.

Where individual experiences have been investigated, methodology has not focused on aesthetic style, considering the visual as mere representation of object, or as isolated abstract attributes that have an important but tenuous link to real world visual communication. Abstracted attribute studies also tend to focus on a set of quantitative responses as opposed to a deeper understanding of how this type of visual communication is being received by individual viewers. More in-depth studies that have been conducted are positioned in the consumer market-based domain. This may not apply to the communication of a much more contentious, complex and future-based issue. These gaps in knowledge can be summarised and grouped into eight main points as seen in Table 2.1

Table 2-1. Gaps in knowledge and corresponding research objectives.

| Gaps in existing knowledge | Objectives of the Study |
|---|---|
| Understandings of visual artefacts are based on isolated elements, such as colour, simple shapes or types of data visualisation | Develop a typology of existing ways in which visual communication of ACC has been presented with reference to the approaches to, and qualities of, ACC communication evident in the design. |
| Understandings of visual artefacts based on the image only as representation of object or concept | |
| Understandings of visual artefacts is predominantly from a consumerist, market-based perspective | |
| Assumptions about the graphic design domain and what artefacts it produces | Document and analyse the processes and practices employed by designers in producing these kinds of communication. |
| Investigation of production of ACC communication based in strategies and conceptual techniques, not on production by graphic designers | |
| Little is known about effects of whole artefact aesthetic style on uptake of message | With the same cases, investigate the experiences and understandings of the communication from audience members. |
| No existing ACC visual artefact studies which examine reception by viewers | |
| Disagreement on types of rhetorical frame most appropriate for communication of ACC | |

These objectives echo calls in literature for a more encompassing approach, which reflects the key gaps in literature, but also provides opportunity and potential approaches for further study:

> *"...There is a need for reconnecting and reintegrating the traditional, but traditionally also relative distinct, three major foci of communication research on media and environmental issues: the production/construction of media messages and public communications; the content/messages of media communication; and the impact of media and public communication on audiences..."*
> (Hansen 2011, 8-9)

## 2.7 Research objectives

The literature review identified three key knowledge gaps that needed addressing in order to enhance our understanding of the way visual aspects of climate change communication can influence viewer experience. In order to address these gaps, the research had the following objectives:

1. Develop a typology of existing ways in which visual communication of ACC has been presented with reference to the approaches to, and qualities of, ACC communication evident in the design.
2. Document and analyse the processes and practices employed by designers in producing these kinds of communication.
3. With the same cases, investigate the experiences and understandings of the communication from audience members.

## 2.8 Research questions

In order to address these objectives, the study was guided by the following research questions:

1. **What types of visual communication approaches are evident in current ACC visual communication artefacts?**
2. **What priorities, dispositions, and practices are employed by designers in producing this kind of visual communication?**
3. **How are visual communication approaches experienced and understood by audience members?**

## 2.9 Contributions

As the literature review has shown, there are many approaches to, and several lacunas in, the knowledge that contributes to understandings of ACC visual communication. This research study seeks to investigate current thinking and build knowledge where little understanding exists, thus contributing significantly to the academic and professional disciplines of graphic design, social science and science communication.

In graphic design, there is no research on production or reception of ACC visual communication, and no research on alignment of aesthetic style with viewer habitus. What research exists is borrowed from consumer market-based research, or doesn't consider the particular qualities of visual communication. For the graphic design academic domain, theory must be built to further develop and test ACC visuals. This study will also contribute to a growing body knowledge for a relatively new academic discipline. For the professional domain, understanding systems of principles that contribute to the meanings viewers make when reading aesthetic style may assist design of persuasive visuals for certain target audience members, and a growing awareness of the influence of aesthetic style may foster better partnerships with climate change authorities and communication strategists.

The social sciences have little understanding of ACC visuals, with a similar dearth in understanding the way these visuals influence the uptake of messages. Few studies investigate the production or reception of existing real world ACC visual artefacts, and where they do, focus is on news media or television advertisements, and production is considered to be government or communication strategy. Theory built from the graphic design domain will also make a contribution to the social sciences, in particular by using sociological methodology from a whole-image perspective. A further contribution will be to heed calls for a sociological approach, which considers the visual aesthetics as well as the text in visual artefacts, and a resulting typology of visual artefact elements.

Science Communication will also benefit from a better understanding of deployment of strategies through translation into the visual. Where many studies have made findings in an abstract sense, research from graphic design will provide a tool kit for tactical deployment of the vast selection of communication strategies in partnership with the graphic design professions. To further develop these contributions, focus now turns to *Chapter 3: Methodology.*

# Chapter 3: Methodology

## 3.1 Introduction

This chapter is divided into two main sections: *Research approach* and *Research design*. The research approach section outlines how the background, research questions and objectives of the study influenced what approaches were taken. Following this, the research design section discusses how these approaches were operationalised in the study, as well as the existing research domains in which this study sits. The research design section investigates from the perspectives of the two systems involved in the study, the human system and the ad system (Phillips and Macquarrie 2004). The individual research participants in these two systems are termed "actors": the human actors and the visual artefact actors. Following the discussions, *Chapter 4: Methods* moves to how these strategies were deployed.

## 3.2 Research approach

Research undertaken within a Master of Design degree (Green 2007), which investigated how to promote graphic design sustainability, influenced both the aim of the study and the choice of methodology. The study was conducted using a quantitative—or extensive—methodology, surveying a population of Australian graphic designers on their sustainable practice. Results showed various barriers to sustainable design. A key finding was that for graphic designers to make significant change to the profession, a change in societal structure is needed. This change would afford all members of society the paradigm in which to align their individual sustainability beliefs with practice. This key finding was exposed by qualitative data, and some data of a particularly rich nature fell outside the scope of the design response to the study. These data were collected through an open question, where designers were encouraged to write their own perspective on sustainability. Some comments interpreted the aesthetic style of sustainability, raising questions about designer and non-designer assumptions:

> *"Green design doesn't have to be 'packaged' as hippy, left, or alternate... countless samples come in which all look like the 'scruffy greenie' which has been stereotyped. This makes it hard to sell to a dull client, if recycled papers, inks etc all looked A grade and I fear 'corporate' much more would be used, or signed off on."*
>
> —Survey respondent comment, (Green 2007, 36)

The surveyed designer's assumption seen in this response reflects the critique of Tonkinwise, who—as discussed in the literature review—views graphic design as a type of Bourdieusian analysis, where the designer attempts to match visual communications with the viewer's habitus, based on the designer's assumptions of audience taste regimes (Tonkinwise 2011b). The habitus of designers and audiences provided a focus for examination for these experiences, within a more open, intensive methodology. This focus is discussed in greater depth in the *Research Design* section of this chapter.

A second influence from the masters study was to approach the problem from a less abstract perspective. Rather than finding problems and designing individual solutions to them using a more abductive methodology, this study sought to examine what is already being produced in the graphic design domain, and how these produced artefacts are being received in society. As the literature review showed, much has been written on what type of message is best for existing communications of climate change, but without a better, real world understanding of what is being produced, how they have been produced, and under what guiding assumptions. Firstly, ACC visual communication has not been problematised, which has allowed for abstract assumptions from a structuralist perspective instead of a relational approach. Secondly, studies that include the production of ACC visual communication have focused on higher level strategy and framing, and not on the people creating the visual translations of these messages. Finally, little empirical work focusses on how existing ACC visual communication artefacts are being experienced by members from proposed target audiences. The research methodology was designed to build theory in these lacunas in existing literature and knowledge.

An important point of departure from the studies found in the literature review was to move forward from considering ACC visual communication simply as images that are representation of objects. Many studies approach the area of study this way, and while it is key for providing empirical information for public communication and policy strategy, it focuses more on the subjective positions of human participants in relation to abstract ideas, using images as shallow symbols for the objects or concepts represented (in the case of graphs, for example). Visual communication artefacts are created by graphic designers using a variety of elements—such as typeface, scale and colour—and theories in an attempt to persuade viewers towards one idea or another. While images can be a part of this composition, they are not always the sole driver, nor should they be examined without contextual or aesthetic considerations. The seminal work by Kress and Van Leewin, "Reading the Visual" (2006) focuses on the semiotic elements within images that can be "read" by viewers of imagery, which progresses from objects as representation to persuasive, styled imagery. There is much that can be appropriated in this text for discussion of images alone, however the whole composition must be considered as one visual artefact for graphic design enquiry. Problematising the visual artefact as a persuasive visual message existing in its own right allowed for the research to focus on a different section of the ACC communication process. This focus was on the visual simulation, or translation of the strategic message that occurs in a real-world situation, rather than more subjective studies which focus on the relationships and understandings between an abstract message or concept and members of the target audience.

The objectives of the investigation indicated that the primary step for this research was to isolate existing examples of ACC visual communication. This signalled a need for a qualitative, intensive methodology, as this type of research is generally based on real world phenomena, whereas quantitative research begins with a theory or hypothesis to be tested (Sarantakos 1998). Furthermore, with little empirical understanding of the use of visual design in the communication of climate change issues, the research is exploratory, and building theory rather than testing it. This renders the research inductive and better-suited to a qualitative investigation. Benefits of qualitative research to this study include:

» Flexibility of methods for different types of data;

» Suitability to understanding the meanings that people attach to phenomena;

» Offering opportunity for follow-up for unexpected results; and

» Ensuring good translation of questions and concepts between interviewers and participants.

The nature of the real-world phenomenon of ACC visual communication in turn suggests a phenomenological approach. This approach is based on how individuals experience phenomena (Sarantakos 1998; Barnard,McCosker and Gerber 1999), and preferences the idea that humans do not experience phenomena as empty, ignorant actors, but instead co-create the experience of the phenomena according to their own sets of dispositions and understandings (Bourdieu et al. 1991; Bourdieu 1992; Throop and Murphy 2002). While Bourdieu's stance was to challenge phenomenology, this study appropriates similarities in his approach to human subjects as already possessing dispositions that help shape experience. Throop and Murphy note that Bourdieu misinterprets phenomenology (in particular, Husserl's phenomenology) in his critique, and does not acknowledge these similarities between phenomenology and his own ideas of habitus (Throop and Murphy 2002). By borrowing the best of these influential approaches, this perspective frames the actuality of the visual artefact relative to the experience of the individual who is viewing it, as well as to the experience of the individual who created it. The individual experience perspective also allows room to acknowledge the researcher who is operating with a level of bias. Given the outcome for ACC communication is to influence understandings in human individuals, this perspective is well-suited to an examination of these existing phenomena.

This individual experience is a key difference between the two similar, and often confused, perspectives of phenomenology and phenomenography . Where phenomenology seeks to understand individual experiences of phenomena, phenomenography focuses on collective understandings, building themes in utterances and developing conceptions from this method (Barnard,McCosker and Gerber 1999; Larsson and Holmström 2007; Ma 2008). The particular experience of the case of ACC visual communication is a set of actors and relationships that interact at an individual level, and it is this experience that is the basis for the research investigation.

Further to the argument of approaching the problem from a phenomenological viewpoint, a key gap in understanding visual artefacts is the study of the influence of the aesthetic style on the experiences of the individuals in the ACC visual artefact relationship. Bartmanski (2015) suggests that to oppose the traditionally structuralist epistemology found in sociology that preferences language and content, phenomenology is the best method for analysis of the relationships that define the aesthetic representations of these types of visual communication artefacts. He proposes, along with other authors in the literature (Crilly 2010; McQuarrie and Mick 2003; Winkielman et al. 2003) that a narrow focus on the aesthetic aspect of an artefact incurs the same issues as the traditional focus on language or content, and calls for a more cultural approach that preferences both aspects of artefacts.

Research from within the graphic design field (Harland 2015; Buchanan 2001) serves both fields of graphic design and sociology firstly, by preferencing neither signifier nor signified, but by investigating the influence of all three actors on the phenomenon of ACC visual communication, and secondly, by investigating the influence of all visual signifiers, rather than isolating only the signifiers with intended rhetorical purpose. Theory borrowed from psychology and commonly used in graphic design practice since the Bauhaus era is Gestalt psychology, which proposes a tendency in human perception to see wholes rather than individual elements (Moszkowicz 2011), and consumer advertising research is starting to define aesthetic appeal through perception of viewers, rather than due to artefact attributes (Winkielman et al. 2003). Previous studies on visual artefact reception in particular focused on the elements that were intended to be rhetorical and how they achieved their aims, but did not cover other signifiers that designers are familiar with manipulating in creating visual artefacts, such as areas of coloured space, or decorative elements that have no intended rhetorical purpose (Williamson 1978; McQuarrie and Mick 2003). Research from the graphic design field also shifts producer focus from strategists to designers, and new thinking in graphic design presents opportunity for new approaches to understanding graphic design process and practice. This reinforces the benefits to all three parts of the study from a phenomenological approach.

## 3.3 Research design

Bartmanski (2015 ) and Hansen (2011) point to a cultural analysis approach, or cultural study (Sarantakos 1998; Rose 2011, 2014) of the phenomenon, that combines the different methods deployed in the study for the two different types of participants—human actors and artefact actors. These different methods allow for investigations into aesthetic style, language and content from a phenomenological perspective (or human system) and visual analysis of visual artefacts from a rhetorical and semiotic position (or ad system) (McQuarrie and Mick 2003; Buchanan 2001, Walsh 2015). This more structuralist visual analysis is then compared with the data to produce a typology of visual artefact signifiers. Figure 3-1 shows a left-to-

right rendering of the chronological progression of an instance of the case of ACC visual communication, with visual artefact at the centre of the diagram, its actual producer (the graphic designer) at the left side of the diagram, and a selected group of audience members on the right hand side. These three sites represent the case of ACC visual communication, and form the focus for research investigation.

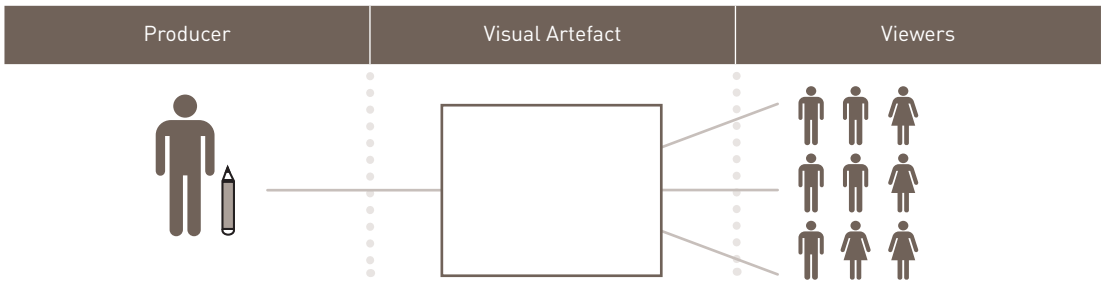



Figure 3-1. Framework for reconstructed case of a visual artefact, its production by a graphic designer and its reception by a viewer audience.

The research study will be divided into the following phases to recreate and investigate the case of ACC visual communication:

Phase 1. Theoretical selection of ACC visual artefacts (Research Question 1)

Phase 2. Interviews with producers (Research Question 2)

Phase 3. Interviews with audience members (Research Question 3)

Phase 4. Visual analysis of ACC visual artefacts (Research Question 1)

Table 3-1. Research design for each research question

| Research Question | Methodology | Method | Phase |
|---|---|---|---|
| **1** What types of approaches to ACC communication are evident in current visual representations of the issue? | Structuralism / Phenomenology | Visual analysis, reinforced by interview data | 1 & 4 |
| **2** What priorities, dispositions, and practices are employed by designers in producing this kind of visual communication? | Phenomenology | Semi-structured interviews | 2 |
| **3** How is the design experienced and understood by audience members? | Phenomenology | Semi-structured interviews | 3 |

As the three sites represent the case of ACC visual communication as delimited by the study, the enquiry surrounding each visual artefact across the three sites was an instance of this case. This construction allowed for the use of a case-oriented approach (Ragin 2006; Hamel,Dufour and Fortin 1993) in analysis, deploying methods such as analysis of causes and effects within each case, comparative analyses of different findings, and the procedure for narrative analysis of "describe, understand, explain". Understanding was demonstrated and translated by description, and explanation drew what was described into the light

of sociological enquiry for deeper analysis. This approach welcomed combinations of methods and methodology and formed the basis for a rigorous investigation into ACC visual communication. This chapter will now discuss the approaches for each phase of the research study.

### 3.3.1 Phases 1 and 4: Visual artefact actors

In response to research question one—the types of approaches to ACC communication—the artefact investigation is broken into two phases. The first part of the research question was addressed in theoretical selection of actors in the case of ACC visual communication, detailed in Chapter 4: Methods. The second part, which combined theory used in theoretical selection and phenomenological data from the human actors, was completed as the final phase after all data collection was complete. This approach combines both an inductive and abductive approach, where each stage of research helps inform the subsequent stage, and the outcome and working principle are created simultaneously (Dorst 2011).

This type of inductive/abductive theory-building approach points to methodologies such as grounded theory. While this may seem a logical approach, and indeed, this study used some of the key methods such as coding and theming of interview data, grounded theory is bound by the ideal of research through data analysis and only data analysis, whereas the findings in this study are well-served by the influence of existing theory across the fields of sociology and graphic design in all four phases of the study. Baudrillard's theories help inform the problematisation of the visual by viewing current visual communications as existing in their own right within a vast context of other signs and symbols. As complete objects, or actors, it was possible to analyse, divide and sub-divide these communications into type as a basis for the investigation into the ways in which they are experienced. Baudrillard's ideas helped confirm the approach of wholeness of artefact in terms of signification and meaning being relational. As Moszkowicz (2011) argues, classification of elements still needs to occur, but a typological division made from observation of artefact may not necessarily be reflected in the way they are understood as part of the whole visual artefact.

This study does present an opportunity, or an affordance (Almquist and Lupton 2009)—a way of viewing the actors in terms of what the artefact affords the viewer, and what the viewer and producer afford the artefact, such as a descriptions of its elements, and a better understanding of the technical limitations that contributed to its visual appearance. This approach was adopted to forge a new typology of visual elements, from the perspective of the graphic design field, that builds towards a visual communication language that better suits the rhetorical and semiotic relationships that surround it.

### Existing empirical studies

As seen in the literature review, current studies in visual communication artefacts from various fields predominantly isolated attributes, such as colour or shape (Person and Snelders 2010; Winkielman et al. 2003; Lester and Cottle 2009), dismissed aesthetic qualities by considering images as representations of object (Snelders,Mugge and Huinink 2014; O'Neill and Nicholson-Cole 2009; Almquist and Lupton 2009; Lester and Cottle 2009; Doyle 2007; Lorenzoni,Nicholson-Cole and Whitmarsh 2007; Linder 2006), and/or approached visual artefacts from a consumerist perspective (Person and Snelders 2010; Phillips and McQuarrie 2004; McQuarrie and Mick 2003, 1996; Scott 1994). Many design studies, some of which address aesthetic style, focus on object, or on fine art, which also presents problems for a study investigating persuasive aesthetically-styled visuals (Markussen 2012; Gallagher,Martin and Ma 2011; Bourdieu 1984).

A selection of these studies informed both the first and the final phases, which focused on the visual artefact. Two studies focused on ACC visuals, using differing methods for sampling (Doyle 2007; Linder 2006). Stephen Linder's study provided sound reasoning for using semiotic signs to describe advertising visuals; applying them using (in part) case study methodology to describe, understand and explain these visual communication phenomena (Hamel,Dufour and Fortin 1993; Ragin 2006). The approaches in the Linder study informed the PhD research design, as did the sampling method of searching online archives. However, these studies ignored aesthetic style, as images were discussed in terms of representation of an object or idea, but not what *type* of representation was used. Julie Doyle's investigation into Greenpeace imagery over the last 30 years (2007) groups the imagery into five chronological phases, and presents a general discussion of each phase. Both studies make guesses at how these visuals might be received, but neither investigates the human system to confirm their assertions.

Similar to this ad system approach, two other studies using news media as sampling source ignored the human system in analysis of ACC visuals (Lester and Cottle 2009; Smith and Joffe 2009). Libby Lester and Simon Cottle produced a thorough analysis of television news visuals and the semiotic elements found within, but the study missed the human element, by not examining uptake of these messages in line with their interpretations. Also, the study did not investigate the site of production (which the authors characterised as populated by journalists), despite including a quote from Ulrich Beck, that asked as a "key question" who creates visuals, and how (Beck 2009). Image was again discussed as representation of object or concepts, which reinforces the need for a cultural analysis approach that investigates influences such as aesthetic style on the relationships between the artefact and human actors. Smith and Joffe (2009) delved deeper into types of imagery and theories involving human reception, but again did not validate these assumptions through empirical investigation into the human system.

These studies, while reinforcing the gaps in existing literature, all point to a semiotic and rhetorical understanding of visual artefacts. A more rigorous method, albeit lodged firmly in consumerist ideology, is a study into visual rhetoric in advertising by Edward McQuarrie and David Mick (1996) and furthered by Phillips and McQuarrie (2004). A combination of semiology and rhetoric, visual rhetoric deals with persuasive visual artefacts, focused in the most part through a consumerist lens. This focus was appropriated for ACC visual communication enquiry, although the message is decidedly more complex, and the "product" far more difficult to signify. McQuarrie and Mick's (1996) Taxonomy of visual rhetoric uses a rigorous analytic approach to rhetorical occurrences, where visual rhetorical figures are sorted into two types of figurative modes: schemes and tropes. Within these two modes, McQuarrie and Mick use "degrees of deviation", similar to Ragin's "fuzzy sets" (Ragin 2006), which were used for the study. These degrees of deviation from a simple scheme (eg rhyme) to a more complex trope (eg metaphor) allowed for the rhetorical figures to be grouped in a similar way to existing rhetoric theory. This, in turn, allowed for existing theories of rhetoric to be applied to the visual. Phillips and McQuarrie's work based on this taxonomy showed a further development by crossing visual structure and meaning, then linking to predicted consumer response. While this provides a useful overall type indicator and direction of study, a set of identified categories focusing on ACC visual communication linked to individual practice was needed.

A final contribution to the investigation of the visual artefacts, which both tempered the rush in this PhD study to classify the artefacts into semiological groupings—and added to the evidence that a cultural analysis approach was best suited this study—was the idea that one should not take the surface of a visual artefact only as "text" (Molotch 2003). Molotch calls this "analytical gossiping" and this study strove to avoid this type of approach, preferring multiple sources of analysis and depth of inquiry. This depth enabled investigation of reception, as well as technical limitations that might have influenced the aesthetic style and surface appearance of the visual artefact:

> *"One must go beyond the surface of a piece to examine the decisions that went into making it, including the constraints imposed by available technologies..." (Molotch 2003, 13)*

### Summary (phases 1 and 4)

The results of the literature review and of existing studies point to four strategies around which phases one and four were based:

» Elements of theories of semiology and visual rhetoric were appropriated for description of ACC visual artefacts;

» Analysis of visual artefacts from the structuralist perspective of the ad system (phase 1), combined with phenomenological perspective of the human system (phase 4);

» Purposive contributions to theoretical selection of types of visual artefact, (detailed in Chapter 4: Methods) using McQuarrie and Mick's taxonomy, and techniques such as online archive searching; and

» Aims to develop a typology that included *types* of rhetorical signifier to begin to address the influence of aesthetic style;

This chapter now moves to the second and third phases of the study, which were the semi-structured interviews at the sites of production (graphic designers) and reception (viewers).

### 3.3.2 Phases 2 and 3: Phenomenological approach for human actors

Research questions 2 and 3 asked what occurs at the site of production for graphic designers, and how visual artefacts are experienced and understood at the site of reception of those same visual artefacts. The method best suited to an intensive examination of the human system at these two sites was in-depth interviews. In the first site from the framework (figure 3.1)—the production of the visual artefacts—discussion post-production ensured no interference in the designer's own process of creation and production. Discussion post-production also allowed for the designer to reference their finished work and refer to its visual elements in similar ways to how the viewers might discuss it. In the third site, that of the reception of the visual artefact, the purpose was to persuade and provoke meaning. This means the viewer reception at the point of exposure was best discussed in person, with a deeper investigation of how it is being received and what meanings are being taken from these visual artefacts. Deployment of this methodology is outlined in this section, in numerical order of phases.

Phase 2 was comprised of semi-structured interviews with the actual producers of the visual artefacts selected for the study. Robert Harland (2011) defines the core of graphic design practice as idea generation, moving on from traditional definitions as a combination of technical outcomes such as typography, photography and illustration. This definition implies a phenomenological investigation of graphic design outcomes and processes, in particular by what practises these ideas are generated, and how these visual artefacts came to appear the way they do.

Phase 3 of the study was a set of semi-structured interviews with a selected group of viewers of the visual artefact that had two main purposes. Firstly, the experience of both phase 2 and phase 3 sets of human actors was key in determining and validating the theoretical selection of visual artefacts and the subsequent visual analysis of those artefacts. Secondly, the interviews with the phase 3 set of human actors revealed how the participants were reading the visual artefacts, and what meanings they described from them. This aspect required both a semiological approach to investigating what readings and meanings were described, as well as exposing the logics that these viewers used in order to co-create these meanings with the visual artefacts. Bourdieu, through his logic of practice (Bourdieu 1992;

Schatzki 2003) proposes "systems of principles" that users develop and deploy in experience of phenomena, and which was borrowed for this study as a means of understanding the experiences of the viewer agents. Another useful Bourdieu insight was that these viewers may experience their understandings and interpretations of the visual artefacts as a natural reaction (Bourdieu 1984) rather than a result of their individual co-construction. This concept is reflected in Husserl's description of "natural attitude" (Sarantakos 1998; Throop and Murphy 2002) and helped shape understandings of the viewer position within the 'world' of the visual artefact.

### Existing empirical studies

There are many existing studies of design process (eg Lawson, 2005; Dorst and Cross 2001), and several design process studies reference Wallas' (1949) seminal five stage model of design process (Kristensen 2004). While these studies reveal much about object-based design process, they consider aesthetic style and communication as a secondary aspect to three dimensional functionality. Considering that graphic design uses aesthetic style as its primary method for persuasive communication, a different process is needed.

Harland's (2015) model of graphic design proposes the generation of ideas at the core, with the various technical manifestations of those ideas intersecting (as discussed on page 26). This model suits both the varied production outcomes of graphic design, and the development of aesthetic styles as communication tools. This study therefore investigates Harland's ideas generation model, focusing on the creative generation of ideas.

Several authors approached the processes of creators in creating artefacts. A key study, Mihaly Csikszentmihalyi's (1996) investigation into creativity and flow[1], used semi-structured interviews to gain insight into the stated practices of selected creative people. Csikszentmihalyi identifies the suitability of this more conversational approach as a way of avoiding insult to a respondent at a high level of professional capacity and status, aiding in achieving responses that were reflective and genuine. Bryan Lawson (2005) also selected interviews as his instrument, with benefits including the ability to select high level professionals, as opposed to laboratory reconstructions or ethnographic techniques that are usually conducted with students. These justifications suit this PhD study, as visual artefacts (and subsequently their designers) were selected due to their representation to theory as well as achieving a level of published success within the graphic design field. Finally the post-production interview instrument suits the requirement for interview subjects to have already designed the theoretically-selected visual artefact.

[1] Flow, or "the zone", is the feeling of full immersion, or absorption in the activity in which one is engaged (Csikszentmihalyi 1996).

The 1996 Csikszentmihalyi study noted limitations due to sampling not being representative to a population, aiming instead to disprove existing assumptions in the case of a negative finding. While this more deductive approach is also borrowed for this study, a sample representative of theory allows for rigorous discussion according to those theories, and for building new theory in an inductive way for future testing.

Key studies for understanding viewer experience of ACC were missing aesthetic style of ACC communication artefacts (Thoyre 2011; O'Neill and Nicholson-Cole 2009; Lorenzoni,Nicholson-Cole and Whitmarsh 2007; Nicholson-Cole 2005) or focused on reception of consumerist visuals viewed as separate elements (van der Linden et al. 2014; van der Linden et al. 2015, Pimentel and Heckler 2003)

While Autumn Thoyre (2011) was not seeking to cast light on human experience of ACC visuals, her study did contribute to the methods deployed in phase 3 of the study. Her investigation into social capital and pro-environmental actions was undertaken using semi-structured interviews with subjects sampled through the snowball technique. As well, the interviews were framed by the respondent at the outset, which helped reduce bias of the researcher. Two of the key studies also featuring in the previous paragraph used Q methodology in researching viewer perception of ACC visuals (O'Neill and Nicholson-Cole 2009; Lorenzoni,Nicholson-Cole and Whitmarsh 2007). This method, involving images that were described in terms of the objects they represented, rather than the visual characteristics or style that they used to communicate these objects, afforded understanding of structures of attitudes, and thinking around subjects, but did not provide evidence for how these understandings were formed, or what meanings were taken from these images. Q methodology used in this way also focuses mainly on the subjective—the opinions and dispositions of the interview participant—rather than the image as an element of the type of specifically-created whole artefact that is implicit in the case of ACC visual communication. One particular finding of the Lorenzoni, Nicholson-Cole and Whitmarsh (2007) study was that viewer perception of authority, or credible source, was a barrier to acceptance of climate change. As the literature review revealed, viewers invoke certain types of code in their reading of visual information (Kenney and Scott 2003; Rose 2011; Folkmann 2009; Williamson 1978). Examination of codes invoked during the viewer experience of ACC visual artefacts and how they influenced perception of authority, using Bourdieu's systems of principles (Bourdieu 1992; Schatzki 2003) made a key methodological contribution to the PhD study.

A study into perceptions of simple shapes, generalised to design of symbolic logos (Pimentel and Heckler 2003) went some way towards an examination of viewer perception of aesthetic styles of visual artefacts. However as shown in the literature review, much of the visual rhetoric work into consumer advertising approaches the visual from a structuralist perspective, whereby visuals provoke behaviours and attitudes according to the systems

in which they operate. Pimentel and Heckler did acknowledge an approach similar to the traditional phenomenological view of individual perception according to their own frames of reference. However the findings preferenced the idea of the object represented by the visual of being more important, and—most importantly—actual visual artefacts as designed by professional designers were not shown. This was due to copyright permissions, however, this isolation and representation of visual artefacts in existing studies exposed a need to examine the reception of existing phenomena. Copyright and permission for reproduction publishing was a key factor in the selection of all participants for this PhD study, to ensure existing aesthetic style was properly addressed.

The two studies which also focused on separate elements by van der Linden et al (2014, 2015) found that the pie graph was "particularly useful" in communicating scientific consensus on ACC—a tactic shown to successfully counter rejection of ACC science (Lewandowsky,Gignac and Vaughan 2012). The studies used statistics from a quantitative study of existing ACC published papers by John Cook et al (2013), which resulted in figures of 97% consensus. However, a key difference in the findings of Cook et al, and what was shown to the van der Linden et al study participants was that the 97% consensus specifically referred to published papers, not to climate scientists. The van der Linden et al participants were exposed to pie graphs, metaphors and facts which stated "97% of climate scientists have concluded that human-caused climate change is happening." The Consensus Project website, mentioned in the van der Linden studies and produced in consultation with John Cook uses the "97% of published climate papers..." terminology, and an investigation into reception of this existing visual artefact allowed for new light to be shed on the van der Linden et al (2014, 2015) findings.

Findings from existing studies by other authors into individual perceptions of ACC made valuable contributions to the selection of suitable participants in phase 3 of the study (Snelders,Mugge and Huinink 2014; Nicholson-Cole 2005; Bourdieu 1984). A common finding in these studies was that viewers possessing some level of intelligence and within certain age groups are better suited to questions relating to aesthetic style. For example, the Nicholson-Cole study found that that a middle class professional group of participants had a good exposure to media and broad knowledge about climate change compared to other groups of participants. The contributions of these studies are found in more detail in the data selection section of the next chapter (Methods).

Summary

» Semi-structured interviews technique for both sites of enquiry to better investigate the individual experience of ACC visual communication;

» Case-oriented approach for analysis of interview data, using "describe, understand, explain";

» Bourdieusian systems of principles investigation into reception of visuals; and

» Copyright permission restricted case numbers in this PhD study, and is a key issue for future work that seeks to examine aesthetic style.

The cultural study approach affords opportunity to appropriate methodology from various domains. This study considered all actors in the case of ACC visual communication as equal, and conducted examination at the three sites in which these actors exist. The difference in actors prompted different methodologies, with a structuralist approach to the visual artefact actor needed to classify all visual elements for further discussion, and a phenomenological approach to the human actors, which also made major contributions to the structuralist classifications of the artefact actors. In this way, structuralist theories are validated with phenomenological results, and phenomenological results build theory where only assumptions exist. This study now turns to detailing how this methodology was applied in the study.

# Chapter 4: Methods

## 4.1 Overview and Structure

The previous section outlined four phases of the operationalising methodology. The first phase was theoretical selection of each of the actors in the cultural study: the visual artefact, the producers of those visual artefacts, and the viewers of those visual artefacts. The next two phases were interviews with the human actors in the study, followed by analysis of the relationships between the actors.

Theoretical selection of each actor used an inductive approach, where selection was both informed by theory and, critically, by data from the phase preceding it. To ensure this is addressed in a logical order, this chapter will commence with the selection of the visual artefacts, followed by selection of the human participants, focusing on theoretical selection of each actor. Discussion will then turn to data collection, which will outline the collection instruments, and reveal the conditions under which the interview data were collected during these second and third phase interview instruments. The data analysis section will then outline techniques used in analysis of the collected data at all three sites of investigation. Ethics are discussed in the final section, with university ethics certification located at Appendix K for further reference.

## 4.2 Data selection

The literature review revealed a lack of empirical research in the field of ACC visual communication, as well as gaps in knowledge surrounding the site of artefact production, the analysis of ACC visual artefacts, and in reception of visual artefacts from outside the consumerist frame. These gaps revealed the need for theory to be built using a cultural study as the framework, so as to investigate the relationships between the three actors involved in the case of ACC visual communication.

The method best suited to an inductive examination of the human system in the case of ACC visual communication was one-on-one interviews, with a semi-structured format. In the first site—the production of the visual artefacts—discussion post-production ensured there was no interference in the designer's own process of artefact creation. Discussion post-production also allowed for the designer to reference their finished work and refer to its visual elements in ways that contributed to the descriptive language of these communications. In the third site, that of the reception of the visual artefact, the purpose of the visual artefact was to persuade and evoke meaning in its viewers. The viewer reception at the point of exposure was best discussed in person, with a deeper investigation of how it was being received and what meanings were being taken. Lastly, the second site, that of the visual artefact itself, benefited from analysis of both sets of utterances. When these utterances were combined with existing theory, the result was a typology of the elements that all respondents, at both human system sites, experienced.

To achieve these objectives within the scope and budget of the PhD research project, an instance of the case of visual communication was recreated for each artefact. This involved analysis of the visual artefact, and interview with the artefact's producer, followed by a forced exposure of all three visual artefacts to a select group of viewers within an interview format (Figures 4-1 to 4-3).

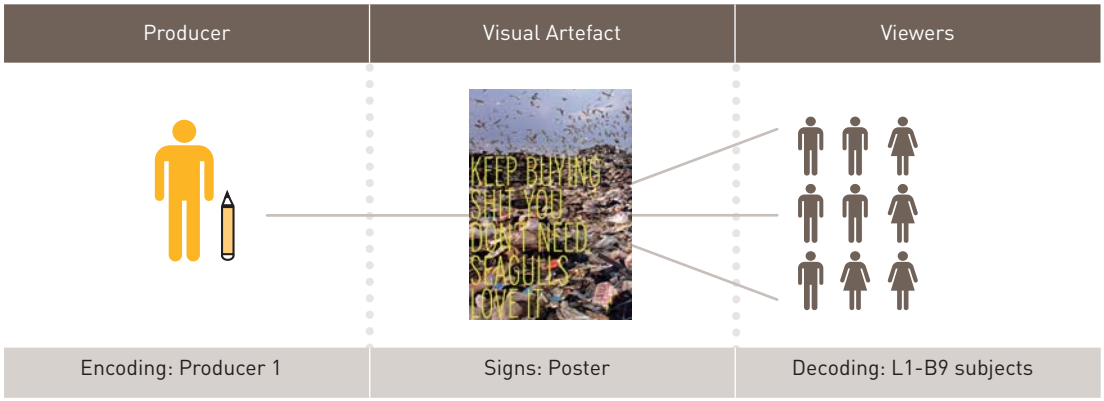



Figure 4-1. Framework for reconstructed instance of case 1: tragic apocalyptic rhetoric, where a case involves a visual artefact, its production and its reception by a viewer audience.

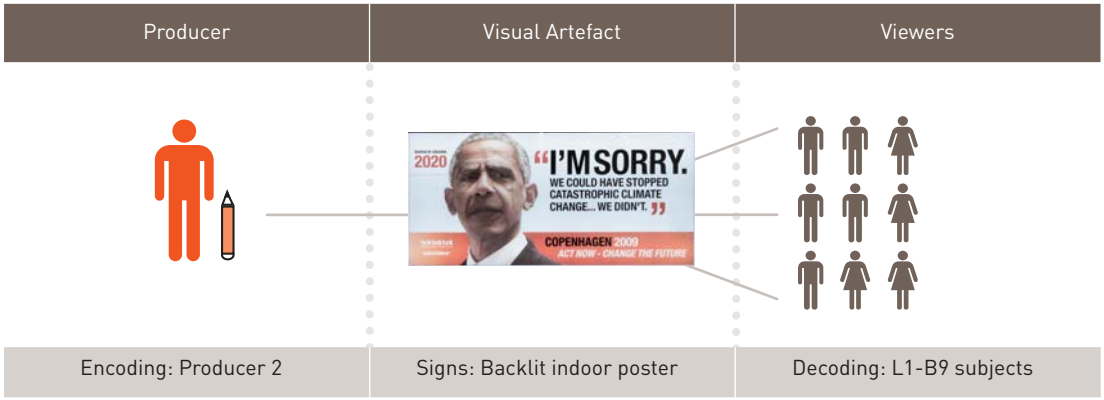



Figure 4-2. Framework for reconstructed instance of case 2: comic apocalyptic rhetoric, where a case involves a visual artefact, its production and its reception by a viewer audience.


Figure 4-3. Framework for reconstructed instance of case 3: values-based rhetoric, where a case involves a visual artefact, its production and its reception by a viewer audience.

### 4.2.1 Artefact selection

The next task of the data selection phase of the project was to select the visual artefacts and producers best suited to highlight existing theories on ACC visual communication (Ragin, 2006). Selection of existing examples in the study by Snelders, Mugge and Huinik (2014) was conducted by an individual considered an expert in the field. Given the criterion for expert status used in the study was that the expert posses a degree in the given field, and that the researcher for this PhD project holds both a Masters degree in the field of Graphic Design as well as 18 years' experience as a professional graphic designer at time of publishing, the researcher is considered an expert in the graphic design field.

To investigate what types of graphic design approaches were evident, the website "Ads of the World" was the source chosen for a selection of examples in September 2012. As an online archive of designed visual artefacts crossing many different visual media and genres, this site provided a thorough start point for a search for ACC visual artefacts (Linder 2006). The variable "print" was applied to the data search to restrict the cases to static, designed visual communications befitting the selection criteria listed below. With location as any country, the key word "climate change" was used to further refine the search, as accepted current terminology for the issue. A pattern emerged whereby the initial examples chosen according to the selection criteria were also located on an "Ads of the World" subsidiary website, titled "Creative Bits". These examples were positioned as "The Best Climate Change Ads" and as such represented a data set that may be well-regarded by the graphic design field. Focus switched to this smaller sample, and fifteen examples of a constructed population (Ragin 2006) were chosen according to the criteria below. One sample, part of a project called "Green Patriot Posters", led to the inclusion of several other posters within this project. Another sample (FIG) was selected as a potential negative instance of case: a visual artefact for a commercial product that still approaches from an ACC perspective. This type of constructed population can better ensure that irrelevant or poor cases do not skew the data set. The fifteen examples were reduced to three visual artefacts at the sixth and final criterion, which unfortunately also excluded the fourth, negative instance of case. The six key criteria for these visual artefacts were:

1. Ideal types of the different ACC frames proposed in existing literature
2. Ideal types of rhetorical figures
3. Considered successful visual artefacts within the field of graphic design
4. Physical capacity for exposure to phase 3 respondents
5. Types of aesthetic representation
6. Producer of visual artefact agrees to be interviewed, and for the visual artefact to be reproduced in published work relating to the study.

The first criterion related to the two opposing types of frames for ACC visual communication proposed by existing authors. These types were fear-based apocalyptic rhetoric frames, (Foust and Murphy 2009; Brulle 2010) and values-based rhetoric frames (Tonkinwise 2011a; Corner and Randall 2011; Lakoff 2010; O'Neill and Nicholson-Cole 2009; Hulme 2009, 2008; Doyle 2007; de Hoog,Stroebe and de Wit 2005; Frascara 1996). Within the apocalyptic rhetoric types were two further types: comic apocalyptic, and tragic apocalyptic (Foust and Murphy 2009).

Figure 4-4 through to Figure 4-18 show the fifteen selected visual artefacts. Figure 4-18 shows the potential negative instance of case.


Figure 4-4. *Apology From the Future*
Arc Communications, Melbourne
Designer: Toby Cotton


Figure 4-5. *The Consensus Project*
SJI Associates, New York
Designer: Matt Birdoff

Image removed due to copyright restrictions

Figure 4-6. *Act Now to Save the Future*
Ogilvy & Mather, Paris
Art Directors: Eve Roussou, Daniela Nedelschi

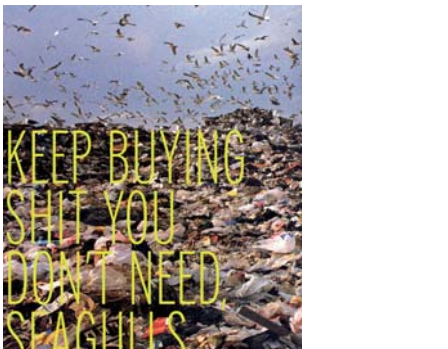



Figure 4-7. *Keep Buying Shit*
Green Patriot Posters, New York
Designer: Diego Gutierrez


Figure 4-8. *Water's Rising*
Green Patriot Posters, New York
Designer: Rob Giampietro

Image removed due to copyright restrictions

Figure 4-9. *People Make Parks*
Green Patriot Posters, New York



Figure 4-10. *Climate labels on gas pumps*
Our Horizon, Toronto
Concept Designer: Robert Shirkey

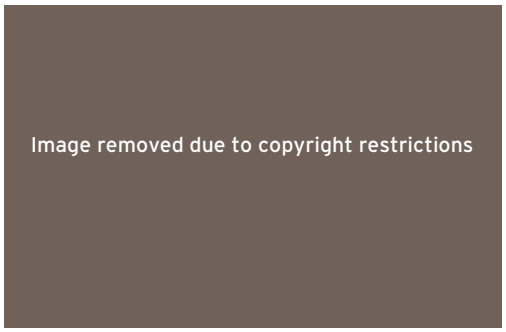



Figure 4-12. *ARPA Panther*
DKP, Brazil
Art Director: Daniel Kahan

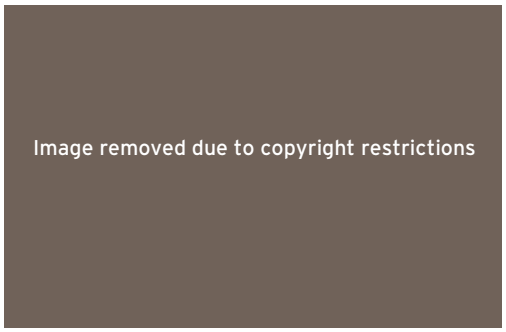



Figure 4-14. *The Future is Man-Made*
Leo Burnett, Sydney
Art Director: Michael Spirkovski

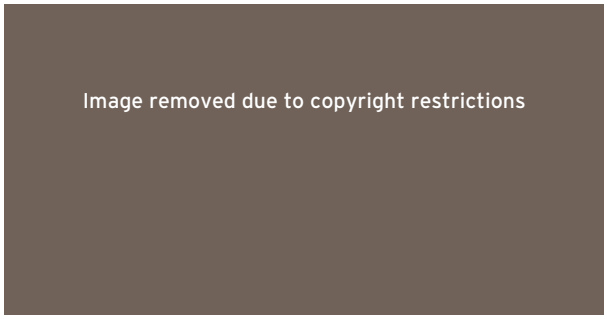



Figure 4-11. *Greenpeace Two More*
DDB, Paris Art Director: Benjamin Marchal

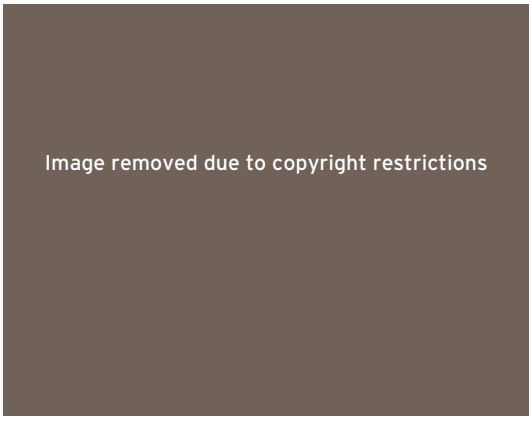



Figure 4-13. *A few decades from now, scaling Mount Everest will no longer be a challenge.*
Pupa communication, Kolkata
Art Director: Anirban

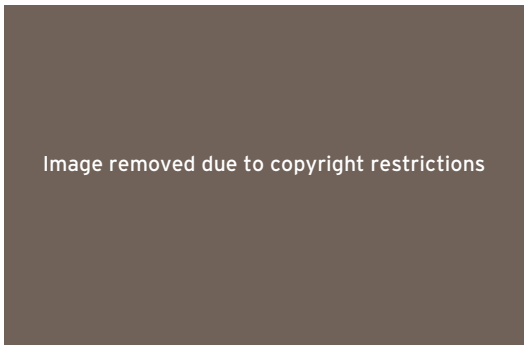



Figure 4-15. *Lungs*
TBWA, Paris
Art Directors: Caroline Khelif, Leopold Billard, Julien Conter

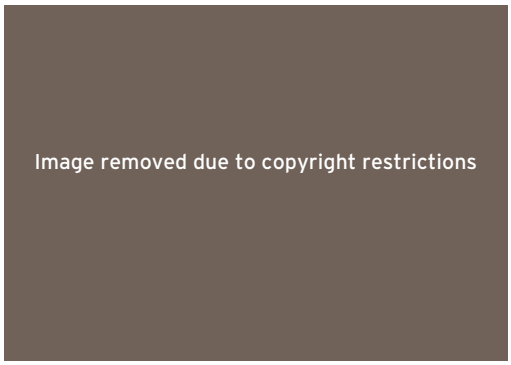



Figure 4-16. *For nature every day is 9/11*
CLM BBDO, Paris
Art Director: Mathieu Vinciguerra

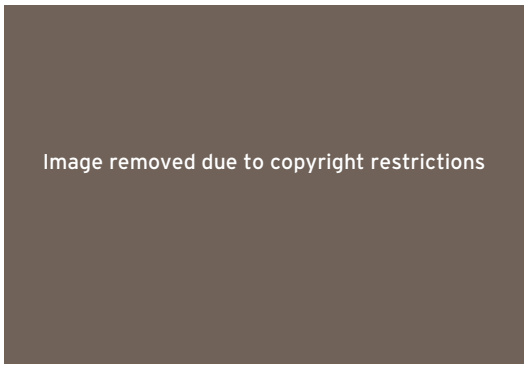



Figure 4-17. *You Can Help Stop Global Warming*
EuroRSCG, Helsinki
Art Director: Luiz Risi


Figure 4-18. *Heineken Sustainability Report*
Addison Group, London
Creative Director: Peter Chodel

Table 4-1. Types of ACC visual communication frames: all artefacts

| **Apocalyptic Rhetoric** | | **Values-based rhetoric** |
|---|---|---|
| Tragic Apocalyptic Rhetoric | Comic Apocalyptic Rhetoric | |
| *Properties:*<br>Closed timescale: no capacity for hope<br>Immediate impact<br>Emotional response<br>Shock | *Properties:*<br>Open timescale: capacity for hope and time for change to occur<br>Immediate impact<br>Emotional response<br>Shock | *Properties:*<br>Build ACC language over time |
| "Figure 4-7. Keep Buying Shit" | "Figure 4-4. Apology From the Future" | "Figure 4-5. The Consensus Project" |
| "Figure 4-11. Greenpeace Two More" | "Figure 4-6. Act Now to Save the Future" | "Figure 4-9. People Make Parks" |
| "Figure 4-13. A few decades from now, scaling Mount Everest will no longer be a challenge." | "Figure 4-8. Water's Rising" | "Figure 4-10. Climate labels on gas pumps" |
| "Figure 4-14.The Future is Man-Made" | "Figure 4-15. Lungs" | "Figure 4-12. ARPA Panther" |
| "Figure 4-16. For nature every day is 9/11" | "Figure 4-17. You Can Help Stop Global Warming" | "Figure 4-12. ARPA Panther" |

Four designers responded to a recruiting email (detailed in the participant selection section) agreeing to participate in the study, and one of each of the three types of rhetoric, as assessed by the researcher, was selected for study. These artefacts were "Figure 4-4. Apology From the Future", "Figure 4-5. The Consensus Project" and "Figure 4-7. Keep Buying Shit". Their representation of the types of rhetorical framing is repeated (shortened to the visual artefact titles) in Table 4-2.

Table 4-2. Types of ACC visual communication frames: three selected artefacts

| **Apocalyptic Rhetoric** | | **Values-based rhetoric** |
|---|---|---|
| Tragic Apocalyptic Rhetoric | Comic Apocalyptic Rhetoric | |
| *Properties:*<br>Closed timescale: no capacity for hope<br>Immediate impact<br>Emotional response<br>Shock | *Properties:*<br>Open timescale: capacity for hope and time for change to occur<br>Immediate impact<br>Emotional response<br>Shock | *Properties:*<br>Build ACC language over time |
| Keep Buying Shit | Apology From the Future | The Consensus Project |

The second criterion was to ensure the visual artefacts could be classified within McQuarrie and Mick's typology of visual rhetorical figures (2003). This allowed for analysis and discussion from a visual rhetorical perspective, and ensured that each selected visual artefact was using persuasive rhetoric as part of its translation strategy. Table 4-3 shows which type of rhetorical figure or group of figures appeared best represented by each of the selected visual artefacts.

Table 4-3. Where the selected visual artefacts fit within McQuarrie and Mick's typology of visual rhetorical figures (McQuarrie and Mick 2003).

| **All Rhetorical Figures** | | | |
|---|---|---|---|
| **Scheme (excess regularity)** | | **Trope (irregularity)** | |
| Less complexity ◄·····► More complexity | | Less complexity ◄·····► More complexity | |
| Repetition | Reversal | Substitution | Destabilisation |
| Rhyme | Antithesis | Hyperbole | Metaphor |
| Chime | Antimetabole | Ellipsis | Pun |
| Alliteration | | Metonym | Irony |
| Epanalepsis | | Rhetorical question | Keep Buying Shit |
| Anaphora | | | Paradox |
| Epistrophe | | | Apology from the Future |
| Anadiplosis | | | |
| Parison | | | |
| The Consensus Project | | | |
| Less degree of deviation ◄·····► More degree of deviation | | | |
| Less cognitive elaboration required | | More cognitive elaboration required (more satisfying, more pleasurable for target audience) | |

The third criterion was that the artefacts could be considered successful examples of graphic design in cultural media. Firstly, the category of examples of graphic design is broad, given the influence of graphic design on our visual perspective. However, importantly, non-graphic design artefacts should be excluded. Table 4-4 shows an inexhaustive list of artefacts considered by the researcher to be examples of media artefacts that can include graphic design contribution. Moving images at far right of the table, including documentaries and television advertisements, were excluded from the study despite some well-known examples and a rich variety of potential candidates. This study focused on the work of graphic designers in producing whole visual artefacts, rather the larger team of creative professionals, including a subset of graphic designers, usually required for the production of moving image artefacts. Secondly, the selected visual artefacts must have been published in the graphic design field, as opposed to conceptual work that may not be considered peer review of visual artefacts. Visual artefact 1: *Keep Buying Shit* was published on the client website, and was selected for inclusion in the project book (Siegel et al. 2011). Visual artefact 2: *Apology From the Future* was published by the client as a commissioned design, and images of the visual artefact were subsequently republished in several major newspapers. Visual artefact 3: *The Consensus Project* was published as a website for the client.

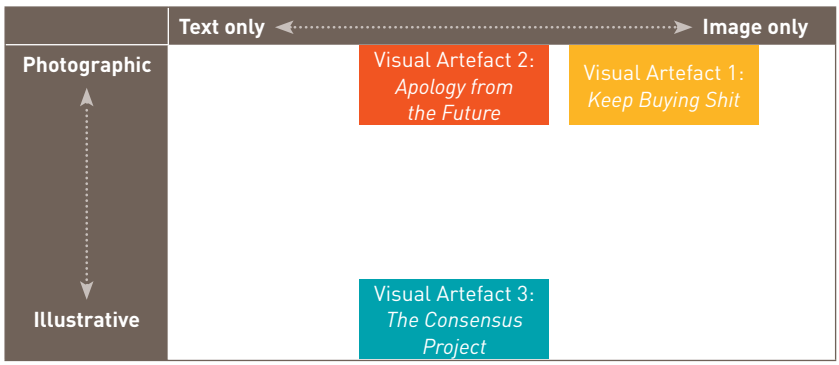
To further refine the idea of an example of graphic design, criterion four reflected Bertin's (1967, 7) ideal of a graphic, "...that which can be represented by readily available graphic means, on a flat sheet of white paper of standard size and under normal lighting." This ideal is the basis for the fourth criterion, that the artefact could be physically reduced in size, printed in colour and mounted to A4 black card for exposure to selected viewers under normal lighting during the phase 3 interviews. Therefore only 2 dimensional artefacts could be included, and excluded artefacts such as moving pictures as found in TV advertisements that are not able to communicate effectively when the dimension of time is removed.

Table 4-4. Media types that include a graphic designer's contribution.

| **Static/Physical Media** | | | | **Screen-based Media** | | | |
|---|---|---|---|---|---|---|---|
| Poster | Billboard | Advertisement | Book/ magazine | Internet site | Internet advertisement | Social network | Motion advertisement |
| *Examples:*<br>Hypothetical/art piece<br>Commissioned work for display | *Examples:*<br>Outside billboard<br>Inside billboard | *Examples:*<br>Press advertisement | *Examples:*<br>Cover<br>Internal layout<br>Images | *Examples:*<br>On-line shopping site<br>Information site<br>Business site | *Examples:*<br>banner advertisement<br>pop-up advertisement | *Examples:*<br>Twitter account<br>Facebook page<br>Internet meme | *Examples:*<br>Television advertisement<br>Documentary<br>Movie theatre advertisement |
| Keep Buying Shit | Apology From the Future | | | The Consensus Project | | The Consensus Project | |

The fifth selection criterion for the visual artefacts was to achieve a good variation of aesthetic composition types, from majority of image in artefact to majority of written text in visual artefact, and containing different types of image representation. Table 4-5 shows this spectrum of aesthetic composition.

Table 4-5. Types of aesthetic composition in visual artefacts




The final criterion reduced the number of selected visual artefacts to four, three of which were suitable for the study. This criterion required the producers of the visual artefact to agree to be interviewed in person, and that their consent was given to reproduce the visual artefacts in publications relating to the study. This copyright permission was crucial to the study, as the aesthetic style qualities required extensive analysis both from the visual perspective, and in terms of discussion of the experience of both sets of human participants.

### 4.2.2 Participant selection

#### Producer participant selection

Recruiting emails were sent to the design studios or agencies responsible for the selected visual artefacts. They were based in Australia, UK, Europe, India, Brazil and the United States. Four studios replied that they would be willing to participate, and negotiations for time and place commenced.

Each graphic designer was required to have either a substantial education in Graphic Design, or, as sometimes occurs in this field, substantial graphic design experience in lieu. It was estimated that no less than 15 years' experience would be suitable for this requirement, and this was addressed during the interview. Depth of design experience was covered in a cursory fashion in the selection of the visual artefacts mentioned in the previous section. This criterion also matches the researcher's level of expert experience, aiding rapport and therefore reducing bias as far as possible.

Designers were also required to have designed the artefact themselves. This criterion unfortunately rendered the first instance of case, located in London, ineligible during the interview with the producer, who was the creative director on the project and not directly associated with production of the visual artefact. All designers volunteered their time with no

inducement offered. One designer requested an exchange of equal amounts of time, which would result in the researcher donating an hour of design work to the respondent at a time of their choosing. At the time of printing, this hour of work has yet to be claimed.

Table 4-6. Theoretical selection of visual artefact producers

| Producer | Visual Artefact | Designer of Visual Artefact | More than 15 years' experience | Tertiary Education in Graphic Design | Gender | ACC Communication Rhetoric |
|---|---|---|---|---|---|---|
| Diego | Keep Buying Shit | Yes | No | Yes | M | Tragic apocalyptic |
| Toby | Apology From the Future | Yes | Yes | Yes | M | Comic Apocalyptic |
| Matt | The Consensus Project | Yes | Yes | No | M | Values-based |

### Viewer participant selection

Following an abductive methodology, data from interviews with the producers of the three visual artefacts informed the selection of the phase 3 interview participants, as well as three more key criteria that define an ideal candidate.

1. The producers' descriptions of target audience
2. Middle class, English-speaking professionals
3. Not holding extreme views on ACC at either end of the spectrum
4. No experience in graphic design, marketing or allied media professions.

The first criterion stems from data provided by the producers of the visual artefacts. The first visual artefact had the target audience of "everyone", which did not narrow the field of potential candidates, but the remaining statements of target audience did contribute to selection. As Table 4-7 shows, the target audience for visual artefact 2 meant that a variety of perspectives on ACC was required. For the third visual artefact, *Apology From the Future*, recruitment of the first target audience was for the specific journalists who viewed the artefacts in situ. As journalism is a media profession, responses to questions on aesthetic style may have been skewed by professional habitus, discounting this group from the study. To address the second audience, recruitment of one of the world leaders portrayed in the series of artefacts (and no longer holding office) was attempted, but no response was received. This again led to the target audience of "general public".

Table 4-7. Target audience stated by producers of visual artefacts in phase 2 interviews

| ACC Visual Artefact | Target audience |
|---|---|
| 1. Tragic Apocalyptic: *Keep Buying Shit* | Everyone |
| 2. Values based: *Consensus Project* | Those not emotionally invested in ACC, or ignorant of facts |
| 3. Comic Apocalyptic: *Apology From the Future* | Primary: Journalists to spread the imagery<br>Secondary: World Leaders to attend conference, General public |

The second criterion focused on the selection of respondents according to the concept that middle class professional viewers possessing some level of intelligence are better suited to questions relating to aesthetic style (Snelders,Mugge and Huinink 2014; Nicholson-Cole 2005; Kenney & Scott 2003; Bourdieu 1984). Kenney and Scott proposed that intelligent viewers invoked certain types of code when responding to visual stimuli, an idea which had the potential to uncover better understandings of how these visual communications are read. The Nicholson-Cole study found that this group had a good exposure to media and broad knowledge about climate change. It also found that the 16-17 yo age group were more influenced by what they were learning within the school environment, which is a less ideal group for the study. This resulted in a delimitation of the study to professional participants ranging from 18-65. Lastly, this delimitation incorporates Bourdieu's proposals that the middle class are best positioned to understand the aesthetics of items of study.

The third criterion was that the respondent hold some views on ACC, but not at either extreme end of the spectrum. This excluded activists from all positions on ACC, whether environmental activists or ACC deniers, as it was perceived that these groups are less open to influence of ACC visual communication. The final 9 respondents were positioned at various points on the ACC spectrum, as Figure 4-19 shows.

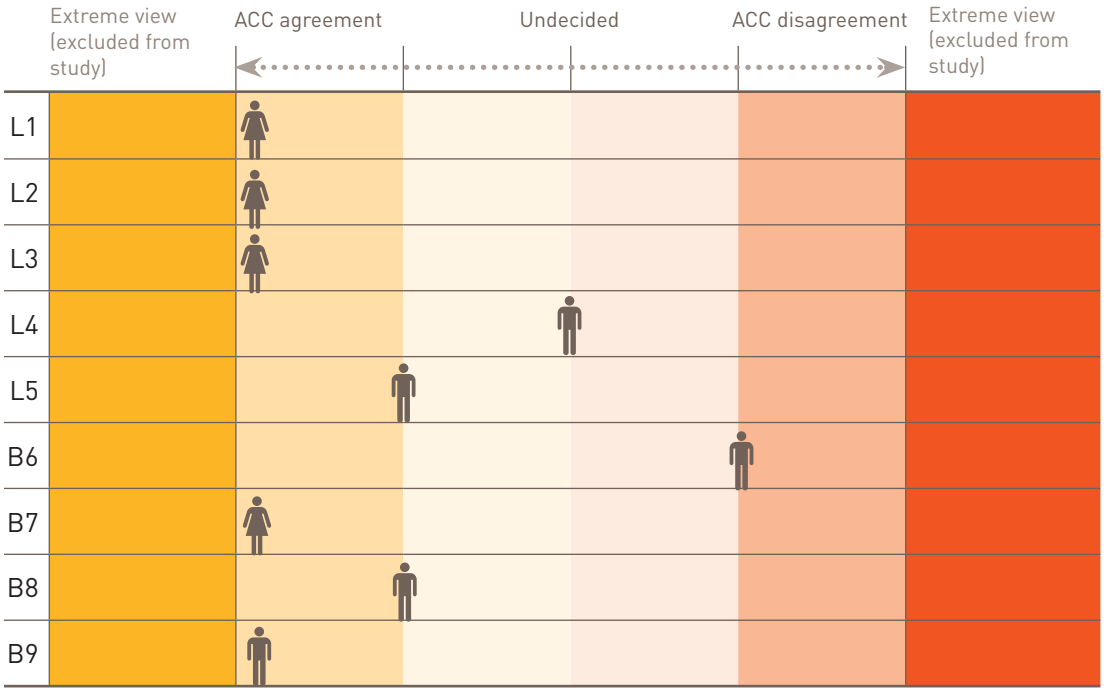



Figure 4-19. Stated position on ACC of viewers

The final criterion for selection of participants was their relationship to professions within the media field. Experience, current or past, as a designer or in any of the allied media fields such as photography, marketing, journalism, advertising or similar rendered the participant ineligible for the study. This criterion was part of the question series found in the phase 3 interviews. Attributes for the respondents are found in Table 4-8.

Table 4-8. Attributes of viewer interview subjects

| Viewer | Age group | Gender | University degree | Extreme views on ACC | non-media Professional |
|---|---|---|---|---|---|
| London 1 (L1) | 20 – 29 | F | + | – | + |
| London 2 (L2) | 20 – 29 | M | + | – | + |
| London 3 (L3) | 20 – 29 | F | + | – | + |
| London 4 (L4) | 30 – 39 | F | – | – | + |
| London 5 (L5) | 40 – 49 | M | + | – | + |
| Brisbane 6 (B6) | 30 – 39 | M | + | – | + |
| Brisbane 7 (B7) | 50 – 59 | F | – | – | + |
| Brisbane 8 (B8) | 30 – 39 | M | – | – | + |
| Brisbane 9 (B9) | 30 – 39 | M | – | – | + |

## 4.3 Data collection

### Instruments: semi-structured interviews

For in-depth investigation of the relationships between the actors in the study, the benefits of semi-structured interviews outweighed the limitations. Benefits to the research project in conducting semi-structured interviews with open questions include flexibility and ease of administration, the capacity to correct any misunderstanding as well as a higher complexity of question, and the opportunity to observe non-verbal cues such as time spent in responses (Sarantakos 1998). While these are obvious advantages to the interview instrument, there are also some limitations: the possibility of bias, whereby the interviewer leads the respondent to discussion; and the chance of a less effective approach to sensitive issues, such as social positioning that respondents may associate with ACC subscription.

The interviews were conducted in two phases, commencing with the designers of the selected visual artefacts, followed by interviews with a selected group of viewers whose responses to the visual artefacts were sought. The interview responses in the first phase informed participant selection and exposure for the second phase of interviews, and therefore had to be completed prior to commencement of the second phase.

#### Phase 2 (producers): interview instrument and question structure

While potential bias can be a limitation for interviews, an aspect of this bias was instead considered a benefit for this study. The researcher, who was also the sole interviewer, fits within the theoretical selection criteria for the expert producers, and can be considered an

expert interviewer (Snelders, Mugge and Huinink 2014). This allowed for better rapport and a freer discussion of creation of visual artefacts without needing to explain or curtail the use of jargon, concepts and technological influences. The use of "we" to represent designers was also intended to provide a more inclusive environment and foster more open discussion (Oppenheim, 1992). The Phase 1 interview questions (Appendix I) were divided into 5 sections:

- General Questions about you as human and designer
- Aesthetic qualities of the featured piece
- The intended audience
- Studio process
- Miscellaneous questions

In the first, more personal section, the designers were asked about their background and personal opinions. Questions 1, 5 and 6 were filtering questions, seeking responses to ensure that respondents sat within the theoretical selection guidelines. These variables were length of time in the design profession, and what type of design study was undertaken. Question 2 was a semi-open question intended to provoke discussion about the designer's opinion on the design industry, and their place in it. There was no expectation for this question to provide data in relation to theory, but served as an introduction to the type of conversational style used through the interview and to establish rapport between the interviewer and respondent. Question 3 pertained to the social and professional positioning of the designer and/or their workplace. Question 4 was intended to provide insight on how the visual artefact related to that positioning, which also sought to shine light on the designers' motivations in producing the artefact. Question 7 was added as a distraction and an attempt to keep the discussion interesting and light for the respondents.

In the second set of questions, the selected visual artefact was addressed, in particular the aesthetic style encoded. At this point, complex artefacts such as the Visual Artefact 3: The Consensus Project, which is a website, were discussed and agreement was sought on which pages were to be mounted and exposed to the respondents in the Phase 2 interviews. Question 8, a semi-open question, asked how the designers would describe the aesthetic style, seeking to frame the following questions and to assess the respondents' understanding of the term "aesthetic style" itself. The remaining 5 questions (questions 9–13) focussed on the process the designers' used and potential influences, such as existing style, client preference and global locations of target audience.

Discussion of target audience funnelled the discussion to the third set of questions, focusing on the client and intended audience. Question 14 sought the designer's understanding of the client's position in their field for comparison with the Phase 2 respondents' perception of client using the medium of the visual artefact. Questions 15 and 16 addressed the intended primary

target audience, and any secondary target audiences. Responses to this question became a dependent variable for the theoretical selection of Phase 2 respondents. The final question in the target audience set, question 17, asked what type of human response the designers were attempting to achieve through the rhetoric and aesthetics in their visual artefact.

The fourth set of questions was stated to be focusing on process, asking for a time-based description from how the design was initiated, through to completion. The intention was to reveal the designers' process through time-based responses, and then to prompt with follow-up questions 19-23. These follow-up questions provoked responses about design process such as peer feedback, overall process compared to process for the selected visual artefact, and enjoyment/emotional response to process. A final question was posed on designer satisfaction with the finished artefact: in some instances, the artefact was produced some years before the interview took place and the idea of what might be changed in the artefact was raised. This allowed for more follow-up to aesthetic style, and the potential for reassessment by the designer following the discussion of target audience, intentions and process.

The final set of questions addressed remaining questions that did not belong to part of a larger set in terms of the inference that the respondent might take from such inclusion. The first question asked whether the artefact had won any accolades or awards. The intention was to investigate the assumption that a potential tertiary target audience, was of the design community itself, with the artefact potentially taking on the role of a social positioning statement by designers (Tonkinwise 2011). Posing this question within the target audience set may have added bias and was therefore asked on its own at the end. Question 26 sought to discover the awards or accolades won by the respondent on other design pieces, which opened discussion to the designer's opinion of design field awards in general. Questions 27 and 28 asked about aesthetic theory and visual persuasion. These questions required framing of the concept of aesthetic style and audience persuasion through discussion during the interview, rather than asking in the initial set of questions. Given the work of a graphic designer is to use aesthetic style as a means for translating and persuading, investigation into designer understanding of, or exposure to, theory was needed.

A final paragraph of information about the study was used as a base to sum up the project and to open discussion of the broader topic, outside the specific investigation of the relationship between the designer and the visual artefact.

### Phase 3 (viewers): interview instrument and question structure

The potential for bias in interviews was mitigated by framing the questions in terms of the respondent's views on ACC (Thoyre 2011). Subsequent questions, posed by the researcher within that frame, also addressed the reduced effectiveness of questions surrounding a potentially sensitive issue (Appendix L). The interview instrument was supported by two types of standardised forced exposure to the visual artefacts. The first exposure was comprised of print outs of each visual artefact as agreed by their producers, mounted to A4 black card and displayed on the table at each interview location (Figure 4-20). This follows Bertin's definition of the scope of the graphic system as existing on a flat sheet of white paper (the printout, then mounted), at a standard size and under normal lighting (Bertin 1967).


Figure 4-20. Primary exposure: three mounted printouts shown to viewers at the same time for indication of preference.

The second exposure, after aesthetic preference was indicated, was the printout of the selected visual artefact from the primary exposure, supported by an on-screen version (and for visual artefacts 2 and 3, alternative versions) displayed on the interviewer's 15" laptop screen (Figure 4-21, Figure 4-22 and Figure 4-23). The viewer interviews were comprised of five sets of interview questions (Appendix N). The first set discussed the respondent, the next three sets addressed each visual artefact in turn, followed by a final set of questions.

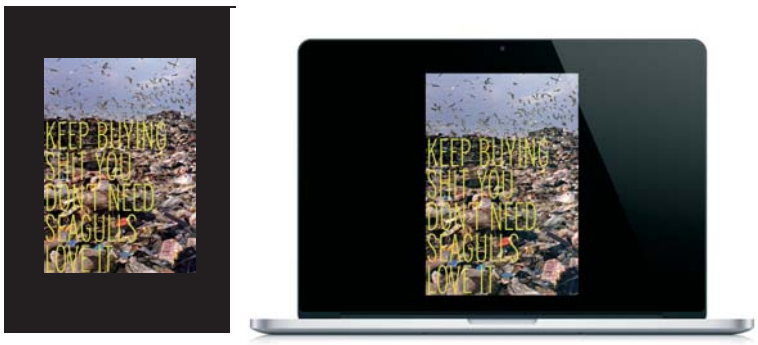



Figure 4-21. Secondary exposure 1: mounted printout and on-screen version as interview reference following selection by viewer


Figure 4-22. Secondary exposure 2: mounted printout and on-screen alternatives as interview reference following selection by viewer


Figure 4-23. Secondary exposure 3: mounted printout and on-screen alternative as interview reference following selection by viewer

The first set of questions focused on the respondent's opinions and background. The first question was a framing question, used to determine where the respondent sat on the spectrum of ACC subscription. This response afforded the interviewer the opportunity to phrase questions more closely in line with the viewer's position and worldview throughout the interview, and allowed for hermeneutic approach to the study. The remaining two questions asked for the viewer's background, including potential variables such as level of education, age and the filtering question of professional experience. Any responses that indicated a professional design background rendered that respondent ineligible for the study. A secondary purpose of these questions was a more general funnelling, to familiarise the respondent with the type of conversational question discussion that was to follow. This also aided the interviewer through familiarisation with respondents' individual conversational styles.

The next three sets of questions asked for the same discussion for each of the three visual artefacts. The first question asked the respondents to select, without too much thought, which visual artefact to talk about first using the primary exposure (Figure 4.2). This question aimed to simulate aesthetic choice within the reconstruction of the instance of case, and was repeated in the third set of questions, where the respondent was asked to select the artefact they would have placed last. The fourth set of questions pertained to the remaining choice, and therefore aesthetic preference was already indicated.

The second question in each of the visual artefact sets was open-ended, asking why the respondent selected that artefact without any prompting of what sort of response, or what theme was expected. Question 5 was intended as a further prompt to question 2, asking directly about "liking", or in some cases, "disliking" the visual artefact.

Question 3 sought to investigate an emotional response, as description of emotions is the clearest access to this part of the viewer experience. Two follow-up questions for emotions, placed at questions 9 and 10, were of particular use if the initial emotion question was not productive. These follow-up questions ensured that "hope" was discussed to afford discussion on the types of apocalyptic framing found in the visual artefacts.

Question 4 was intended to follow up on the respondent's stated position on climate change, potentially to mitigate the potential for less effectiveness due to sensitivity about social positioning based on the level of ACC subscription. For example if the stated position and the artefact position did not match, it was expected that the respondent would reply in this way. Deviations from expected responses on this question may have suggested a different ACC position, either as a result of exposure to the visual artefact, or of sensitivity.

Question 6 included the first mention of the word "style" to the respondents, outside the recruiting email correspondence. The word "trendy" was also selected, to aid the respondents with the intention of the question, and provide an example word that could be

used to describe aesthetic style. Questions 7 and 8 addressed the in-group and out-group theory discussed in the literature review, with respondents asked to assess whether they felt personally addressed, or as a member of a larger group.

Question 11 sought information relating to the meaning that respondents were describing in the visual artefacts, by asking for their perception of the "authority" behind the message.

Question 12 asked whether they trusted the perceived authority from question 11. These questions were intended to provoke discussion, rather than serve as closed questions.

Question 13 was intended to create a variable for analysis of the respondents potential exposure to the web-based artefact, however the responses may have been understated for social positioning, despite some interviewer interjections on large hours spent online each day.

Question 14 was intended to separate beliefs or trust in Science from ACC, for use in comparative analysis only. Question 15 was an open question to provoke discussion on personal actions in relation to climate change. It also served as a follow-up question for the concept of "hope", and potentially for the in-group and out-group theory investigation.

### 4.3.1 Phase 2 interviews: Producers

The three graphic designers whose studios produced the ACC visual artefacts selected as ideal types were interviewed using semi-structured interview instruments. The interviews were conducted in person between the researcher and the designer, in one session ranging from 40 minutes to 90 minutes. The eligible interviews were completed between December 2013 and January 2014 in New York, USA and Melbourne, Australia. The location of interview was at the preference of each designer: a choice between their own studio or visiting the researcher's rented accommodation within their city. Options of a coffee shop were not considered as the noise may have interfered with accurate voice recording, however water, coffee and bakery goods were provided. The first interview, with designer of visual artefact 1: *Keep Buying Shit* (Diego) was conducted in the researcher's rented accommodation in Brooklyn, New York. The second interview, with the designer of visual artefact 3: *The Consensus Project* (Matt) was conducted in the Manhattan office of JSI Associates, the design firm for which the artefact designer works. The third interview, for visual artefact 2: *Apology From the Future* (Toby) was conducted in a hotel meeting area in Melbourne, Australia. The interviews were recorded using two digital recorders displayed visibly. The recordings were transferred to a university computer and the digital memory cards erased and stored in a locked drawer. The recordings were then transcribed using a professional transcription service and stored on a University computer, with one set of printouts kept in a locked filing cabinet.

### 4.3.2 Phase 3 interviews: Viewers

Viewer participants were recruited using the snowball method (Thoyre 2011). Friends and acquaintances who met the criteria (but may have added unacceptable skew to the results) were approached as agents to forward the recruiting email to people they knew who may also meet the criteria, and who might be willing to participate in the study. This allowed for the agent to select potential participants based on their knowledge of their position on ACC, their professional status and general class without having to ask the participants prior to the interview and potentially skew their perspective. A conference presentation by the researcher near to London during the data collection phase afforded the opportunity to interview participants meeting the criteria from a different English-speaking country to Australia, and 5 willing participants were recruited by London agents. Four eligible participants were found in Brisbane. An inducement of £10 supermarket voucher for the London participants, and a $20 supermarket voucher for the Brisbane participants was offered.

The interviews were conducted between June and August, 2014. The interviews were conducted in person between the researcher and the viewer, in one session with the duration of between 26 and 48 minutes at a time of the participant's choosing. The participants were given two options of location of interview: their place of work, or at the Brisbane university campus of the researcher. The London interviews were held at the workplace of the participants, as were three of the four interviews of the Brisbane participants. The remaining Brisbane participant elected to be interviewed at the researcher's Brisbane university campus, in a private conference room with water provided. As with the phase 2 interviews, the phase 3 interviews were recorded using two digital recorders displayed visibly. The recordings were transferred to a university computer and the digital memory cards erased and stored in a locked drawer. The recordings were then transcribed using a professional transcription service and stored on a University computer, with one set of printouts kept in a locked filing cabinet. The number order of interviews was rearranged to ensure maximum levels of anonymity.

To attempt as much standardisation as possible, all viewer participants were exposed to the same three mounted artefacts in the same order of exposure. Impression management principles were to appear as similar to the selected participants to aid rapport (Oppenheim 1999). For the professional level participants, smart casual attire was selected, with aesthetic choice intended to reflect a university researcher and design professional rather than business professional. Flamboyance was avoided, and dark colours selected in order to aid the black cardboard framing of the mounted visual artefacts (Figure 4-20).

## 4.4 Data analysis

The case-oriented approach (Ragin 2006) affords the opportunity to investigate the phenomenon of relationships between the human and ad systems of ACC visual communication. As discussed in the methodology section, the research study examined three instances of ideal case, using visual and interview methodology. This allowed for intra- and inter-case comparisons, commencing with coding and thematic grouping, followed by deeper analysis through narrative analysis, matrix analysis and visual methodology.

### 4.4.1 Data reduction

The data reduction and analysis were broken down into two general stages before moving to a more analytical perspective. Firstly, provisional coding (Miles,Huberman and Saldaña 2014) involved searching the interview data for themes according to assumptions and existing theory. Many parts of both sets of interview data were simultaneously coded. This provisional coding led to sub-coding, where patterns began to emerge requiring further isolation (Table 4-9 and Table 4-10). The second stage involved a deeper thematic and pattern analysis, and progression to matrix displays of utterances isolated in the coding process, such as tables and spectrum diagrams. Further stages are outlined in the data analysis section.

Table 4-9. Data coding: Producer interviews

| Theory or Purpose | Provisional Codes | Sub-codes |
|---|---|---|
| Habitus & Process | Why became a designer | Positioning in the field |
| | Conscious Practice | Feedback from other designers |
| | | Client interaction |
| | | Feedback from friends in allied professions |
| | Encoded message | Grassroots code through emotions |
| | | Encoding for other designers |
| | Flow/lost in the process | Organic flow |
| | | Passion |
| | | Search for terms taken from Csikszentmihalyi's (1996) study on Flow. |
| | Judgement | |
| Simulacra | Truth of image | |
| Materiality / Aesthetic Style | Aesthetic Style | Commercial aesthetic style |
| | | Aesthetic Taste |
| | | Aesthetic Style |
| | | Aesthetic education |
| | | Opinion of aesthetic choices of designers outside the study |

Table 4-10. Data coding: Viewer interviews

| Theory or Purpose | Provisional Codes | Sub-codes |
|---|---|---|
| Decoding | Hegemonic Code | Corporations |
| | | Corporate Style |
| | Counter-hegemonic code | Grassroots style |
| | | Grassroots organisations |
| | Authority | Perceived authority |
| | | Stated trust of authority |
| | Perceived target audience | Respondent feels part of a target audience as an individual |
| | | Respondent feels part of a target audience group |
| Simulacra | Truth of image | |
| Materiality / Aesthetic Style | Aesthetic Style | Barriers to aesthetic selection |
| | | What is liked |
| | | What is disliked |
| | | Relating to self |
| | | Discussion of elements |
| Apocalyptic Rhetoric | Hope | Stated hope |
| | | Ability to make a difference |
| Emotional response | Stated emotions | |

### 4.4.2 Data analysis.

Following data reduction and the emergence of patterns and themes, data analysis commenced using several different approaches for the three different datasets. The coded interview data from second and third phases of the research study were analysed using quadrant diagrams, comparisons of data and other matrices. Narrative analysis followed the manipulation of data, using the technique of 'describe, understand, explain' (Ragin 2006; Hamel,Dufour and Fortin 1993), which in turn provoked further matrix analysis and discussion. The visual artefact analysis was coded by first using visual coding according to graphic design purpose, and then validating this with utterance data from phase two and three interviews.

During the narrative analysis stage, the constant comparative method (Sarantakos 1998) was applied by finding ideal and deviant examples relating to findings from narrative or matrix-based analysis. These examples were compared between respondents and between instances of case depending on their context.

The inductive nature of the coding of visual artefacts required an approach using existing theory, as well as data from the other research phases of the cultural study. As the first step in creating a typology is to divide the objects in question into groups according to their attributes (Kluge 2000, the visual artefacts were broken down into individual elements, and then grouped. The study used semiological terminology, appropriating "sign" as a unit of meaning within visual artefacts. Saussure's units of language are borrowed, where

each "sign" is described in terms of a "signifier"— that visual or conceptual element which represents the meaning—and a "signified"—the meaning or meanings represented (Saussure and Harris 2013; Berger 2010). A useful snowballing nature of the signifier/ signified relationship is that signified concepts can in turn become signifiers for further concepts or messages, ad infinitum (Linder 2006). Judgements were made according to whether refining types added to understanding (Crilly 2010). Utterances from producers and viewers were compared to the visually-coded element list using constant comparative method (Sarantakos 1998), validating elements present for all respondents, and also providing additions of elements and new groupings. These groupings were further refined according to theoretical underpinnings of semiology and visual rhetoric.

## 4.5 Ethics

The research was considered to be negligible or low risk to the human participants of the study. The University Ethics Approval Number is 1300000634, and the approval certificate can be found at Appendix K. An example of full interview transcripts for phase 3 participant group (viewers) is not included in the appendices, as there was the potential for this to become identifiable data. For example, some participants were known to other participants and may recognise patterns of speech or opinions. No transcripts are included for the phase 2 participants (producers), as the interviews disclosed business practice and ideas that have the potential to adversely affect the participants or their businesses. Permission was given for reproduction as data, as opposed to full reproduction of transcripts. Full permission was granted for reproduction of Visual Artefacts for publications relating to the study, including the PhD thesis and journal papers. The producer of visual artefact 3: *The Consensus Project* agreed for the first two pages of the website to be shown to viewer participants, and for subsequent reproduction.

# Chapter 5: Results

## 5.1 Introduction

Following the methodology outlined in Chapter 3, and methods in Chapter 4, the aim of the Results chapter is to provide visual display and initial analysis to be used for further discussion in Chapter 6. Using the framework of the study seen in Figure 4-1, the structure of the chapter first approaches the site of the visual artefact, secondly, the site of production of the visual artefact, and lastly, the site of viewer reception of the visual artefact using extracted utterances located in the appendix section.

The first two sites of investigation provide key backgrounding for the foreground investigation discussed in Chapter 5. At the site of the visual artefact, results centre around a typology of the signifiers found in the visual artefacts, and codes each artefact according to these types. A second typology of professional coding is taken from the viewer utterances, but is used here to define the code in relation to the visual artefacts. The site of production results details the encoding processes described by the producers of the visual artefacts, particularly focussing on the type of creative process that led to the visual artefact, and their interpretation of the aesthetic style they used to translate the message to viewers.

The site of viewer reception provides a variety of results based on the decoding of the visual artefacts by viewers. Starting with aesthetic preference between the three artefacts, the results show the order of discussion of the individual signifiers within each artefact, and the point at which discussion turns from describing the qualities of the signifiers to relating to personal beliefs, experiences or dispositions. Other results include the stated level of trust of the message, how the individual elements and overall aesthetic style is perceived, and the relationship between both these sets of results to each other. Emotional responses are added as another type of influence on trust that can be expressed as a figure.

Further analysis, interpretation and intensive discussion of these results will follow in *Chapter 6: Discussion*.

## 5.2 Site of Visual Artefact

The isolation of all visual elements, using both visual coding techniques and utterances from the phase 2 (producer) and phase 3 (viewer) interviews, allowed each visual element to be described in terms of its intended rhetorical purpose within each visual artefact. This then allowed for grouping of types of visual elements, for comparison between cases and within cases, and other types of analysis. The following results demonstrate this visual coding technique.

### 5.2.1 Visual Artefact 1: Keep Buying Shit

The first visual artefact in the study is shown in Figure 5-1, and was broken down into two individual elements that can be observed, as seen in the simplified visual artefact map in Figure 5-2. Elements that were discussed in the interviews with producers and receivers, such as typeface and colours (which cannot be isolated on a map) were also isolated. In this example, that meant there were four visual elements, rather than the two as isolated in the visual artefact map. These elements were then described from a graphic design perspective, and listed as a type of visual signifier. These types all contributed to the new typology of signifiers in visual artefacts (Table 5-1 on page 81).


Figure 5-1. Visual artefact 1: *Keep Buying Shit*

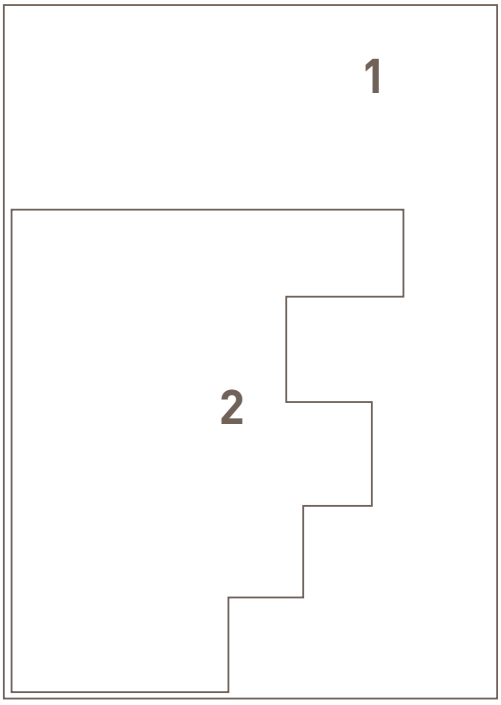



Figure 5-2. Signifier map of visual artefact 1: *Keep Buying Shit*


**1**
**Photographic representation of object**

KEEP BUYING
SHIT YOU
DON'T NEED,
SEAGULLS
LOVE IT

**2**
**Primary message**

**3**
**Colours**
Yellow (referenced by "bird poop")

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

**4**
**Typography**
Interstate (Light Condensed, Uppercase)

Figure 5-3. Signifier elements of visual artefact 1: *Keep Buying Shit*

### 5.2.2 Visual Artefact 2: Apology from the Future

The second visual artefact in the study is shown in Figure 5-4, and used the same methodology as the first visual artefact on the previous page. This methodology entailed isolating each observable element, seen in the simplified visual artefact map (Figure 5-5). Adding elements that arose in the interview utterances by both the producers and the viewers of the visual artefacts resulted in the addition of the same two elements as for visual artefact 1: colour and typography. Visual artefact 2 was more complex than visual artefact 1, with 11 different elements. These elements were also described using graphic design terminology, and as a result, more signifier types were added to the typology of signifiers in visual artefacts (Table 5-1 on page 81). These signifier types provided a rationale for only deconstructing one of the three alternative artefacts shown to the viewer respondents in the secondary exposure to this artefact (Figure 4-22). All three alternative versions of visual contained the same types of signifiers, even though the subject of the photographic representations, and some of the wording, was slightly different. This use of the typology allowed for focus to remain on the signifier, rather than the traditional focus on the object being represented in the visual artefact.


Figure 5-4. Visual Artefact 2: *Apology from the Future*

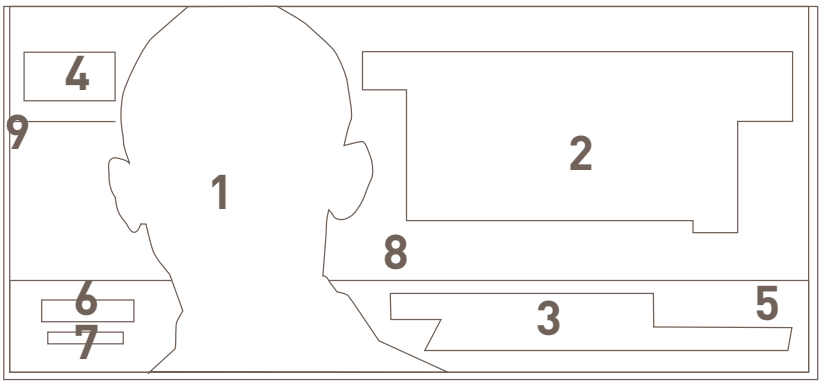



Figure 5-5. Signifier map of visual artefact 2: *Apology from the Future*.

**1**
**Photographic representation of object**
Cut-out (deep etched) artificially-aged world leader (Barack Obama, President USA)

"I'M SORRY. WE COULD HAVE STOPPED CATASTROPHIC CLIMATE CHANGE... WE DIDN'T."

**2**
**Primary message**
Quotation marks around text to indicate speech of the represented object
Colour: Black and orange Typeface: Helvetica.

COPENHAGEN 2009
ACT NOW - CHANGE THE FUTURE

**3**
**Secondary message**
Colour: black and white (shown black) Typeface: Helvetica

BARACK OBAMA
2020

**4**
**Secondary message** as aid to image comprehension
Colour: Black and orange Typeface: Helvetica.

tck tcktck

COPENHAGEN 2009
ACT NOW - CHANGE THE FUTURE

**5**
**Illustrated area**
Colour: orange

tcktcktck

**6 & 7**
**Secondary message**
Logos on orange illustrated area
Colour: white

**8**
**Illustrated area**
Colour: white

**9**
**Illustrated area**
Dotted line creating border around image, also underline and image link for element 4. Colour: orange

**10**
**Colours**
Orange, Black, White

ABCDEFGHIJKLM
NOPQRSTUVWXYZ

**11**
**Typography**
Helvetica, Upper Case, Bold and Regular

Figure 5-6. Signifier elements of visual artefact 2: *Apology from the Future*.

### 5.2.3 Visual Artefact 3: The Consensus Project

The third visual artefact in the study is shown in Figure 5-7. Using the same methodology as for visual artefacts 1 and 2, the elements within this visual artefact were isolated, described and analysed as belonging within a type of signifier (Figure 5-9), according to design terminology and to what was found in the utterances of interview respondents. This visual artefact was far more complex, and new types of signifier were required to describe all elements. These types are all found in the typology of signifiers in visual artefacts (Table 5-1 on page 81). The secondary viewing of this artefact involved an alternative page, and as this page contained different types of signifier, it was also subjected to methodological deconstruction. The alternative page view of this website follows in the next section.

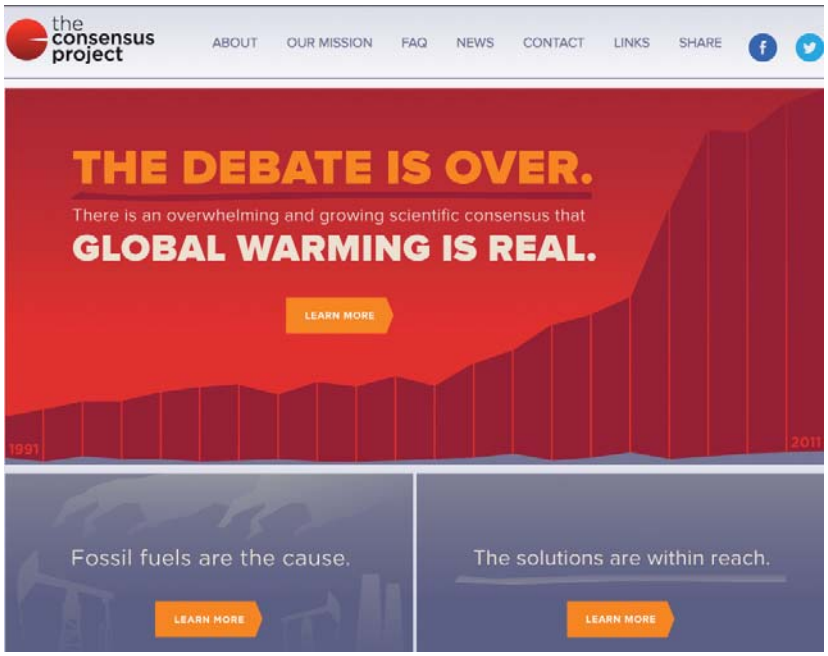



Figure 5-7. Visual artefact 3: *The Consensus Project*

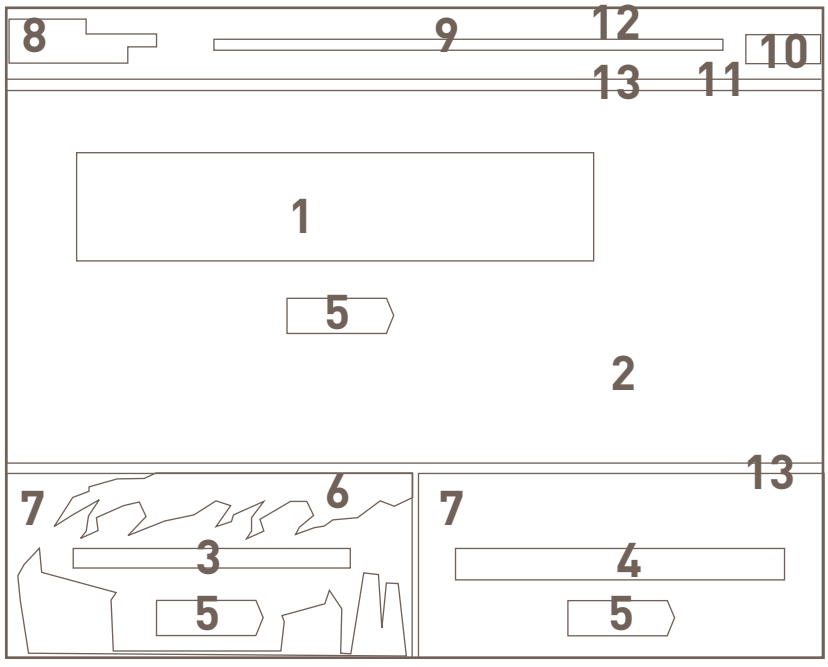



Figure 5-8. Signifier map of visual artefact 3: *The Consensus Project*.

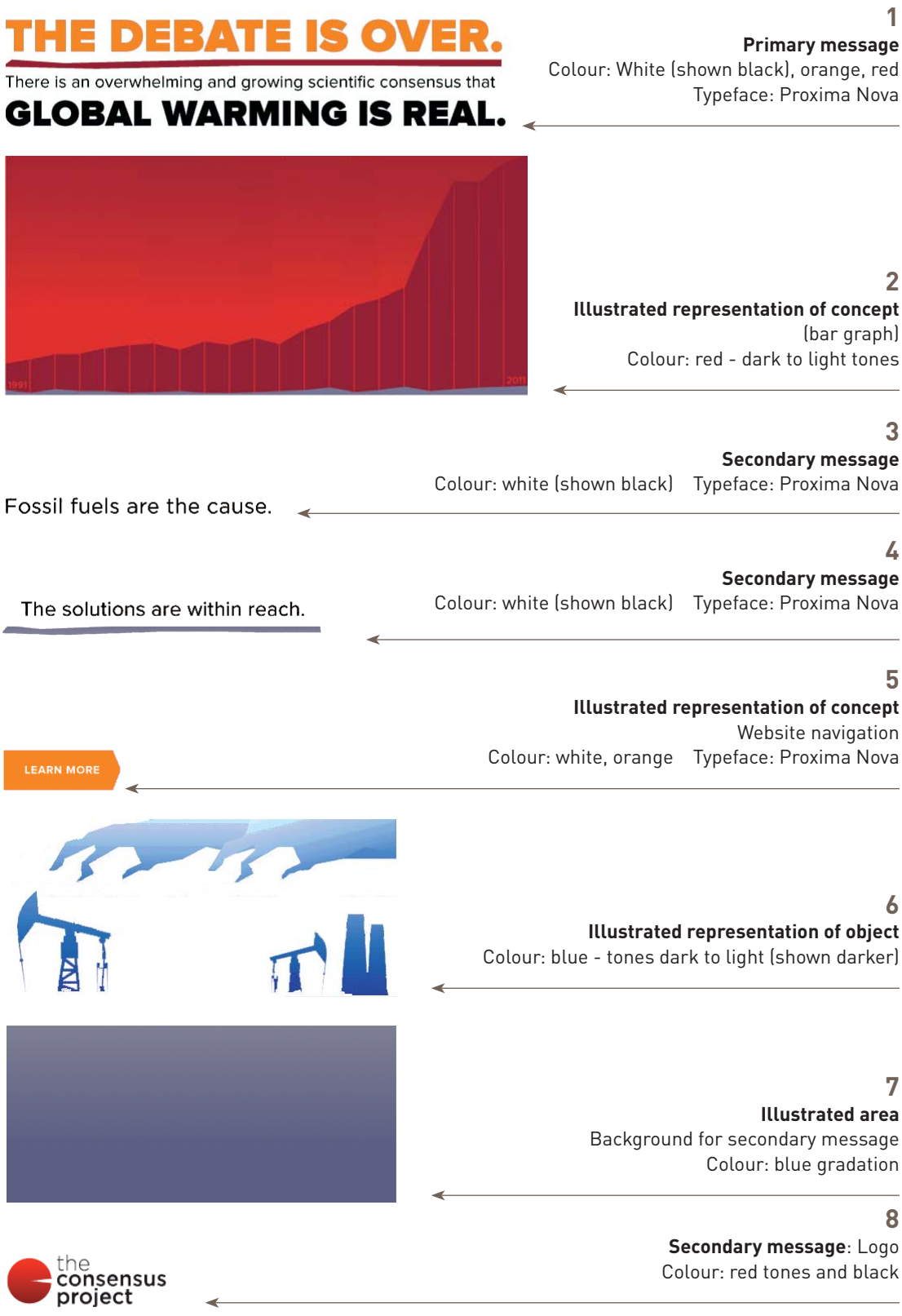



Figure 5-9. Signifier elements of visual artefact 3: *The Consensus Project* (continued next page)

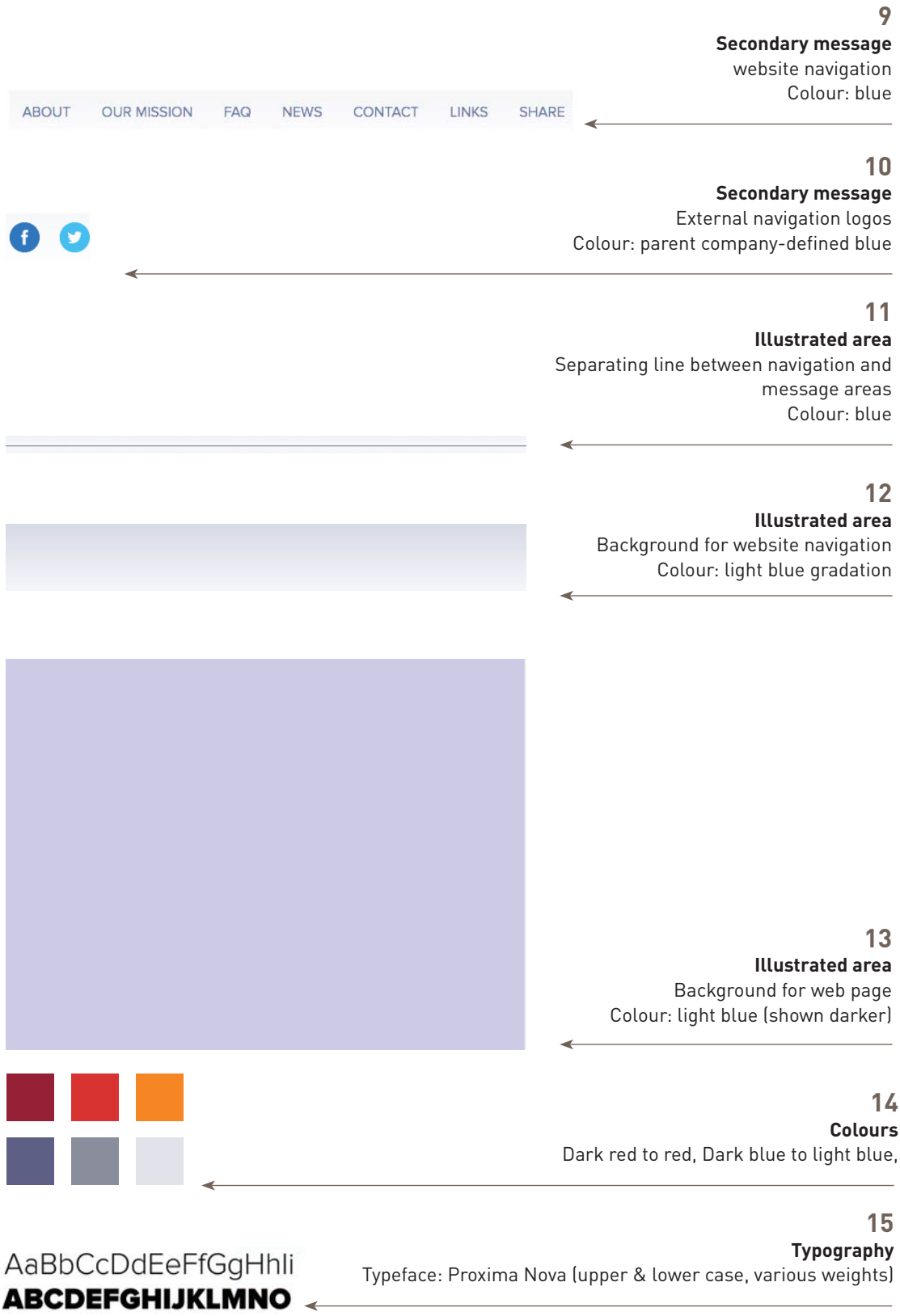



Figure 5-9 (cont'd) Signifier elements of visual artefact 3: *The Consensus Project*

### 5.2.4 Visual Artefact 3: The Consensus Project (alternate screen)

The alternative view of the third visual artefact, as presented to phase 3 participants in the second exposure (Figure 4-23) is shown at Figure 5-10, This alternative presented a number of different signifier types in different configurations to the first alternative, and was therefore deconstructed as a visual element in the same way as the other visual artefacts in the study. This visual artefact also presented opportunity to analyse and discuss the claim of 97%, represented as a pie graph, which features in current thought on ACC visual communication.


Figure 5-10. Visual artefact 3: The Consensus Project (alternate screen)

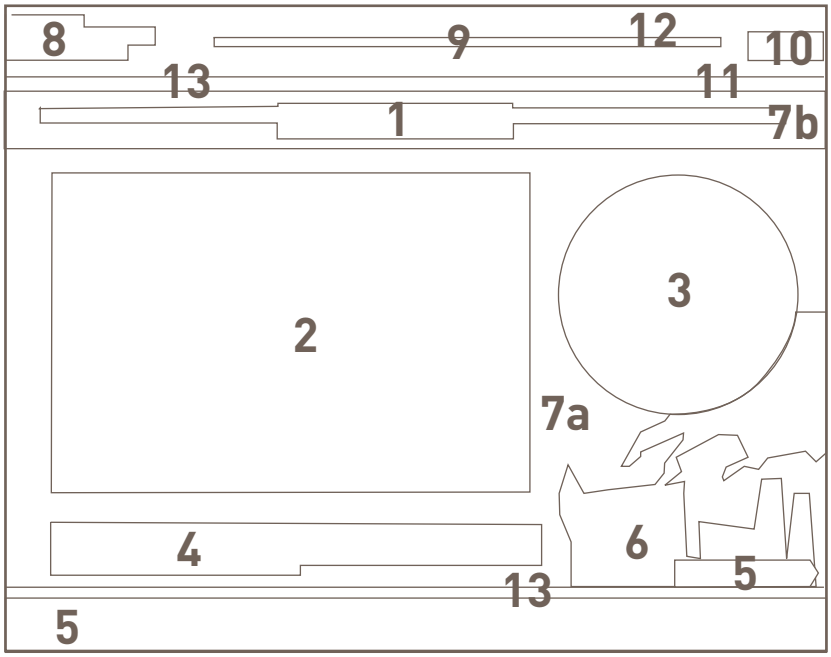



Figure 5-11. Signifier map of visual artefact 3: The Consensus Project (alternate screen)

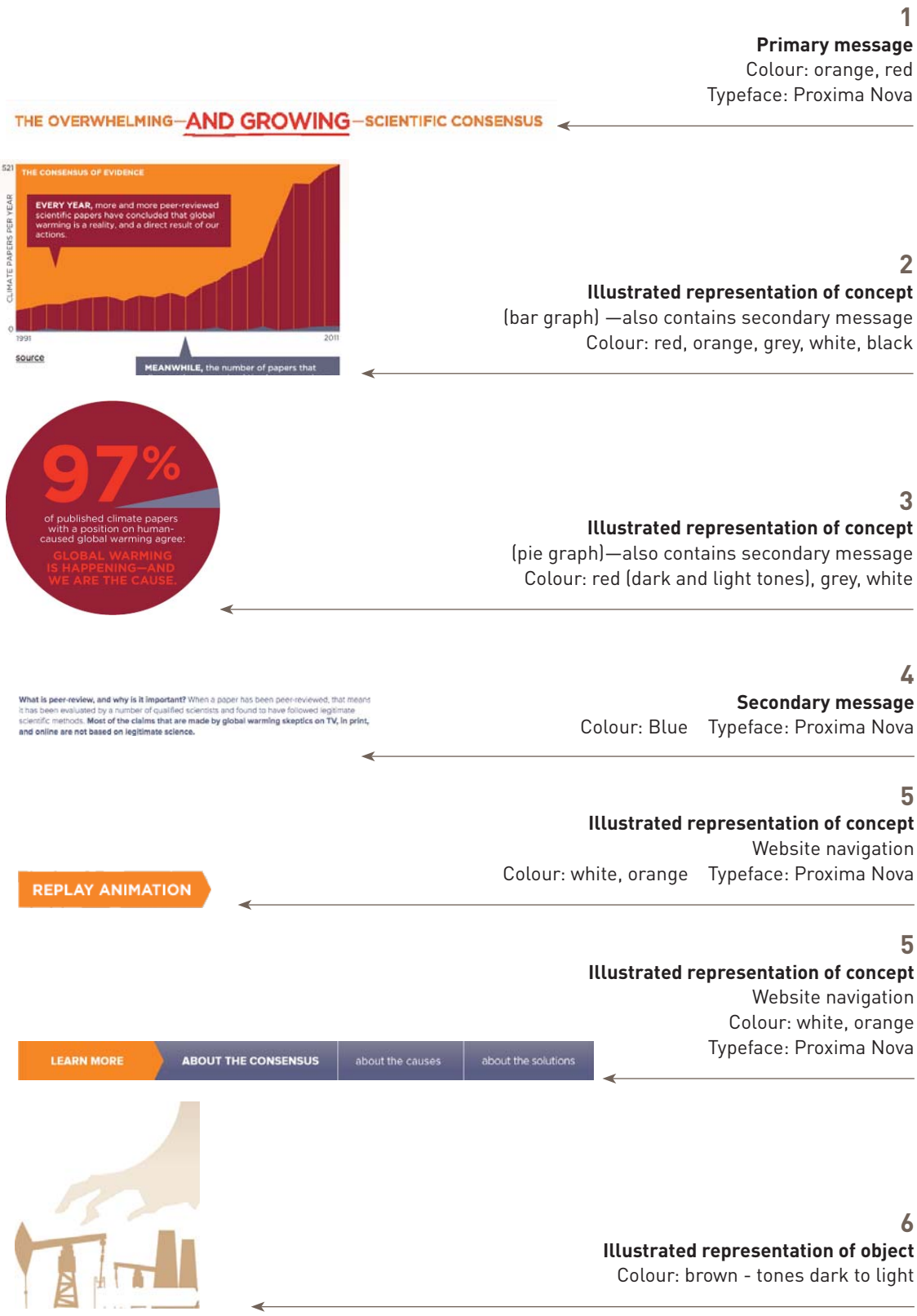



Figure 5-12. Signifier elements of visual artefact 3: *The Consensus Project* (alternate screen)

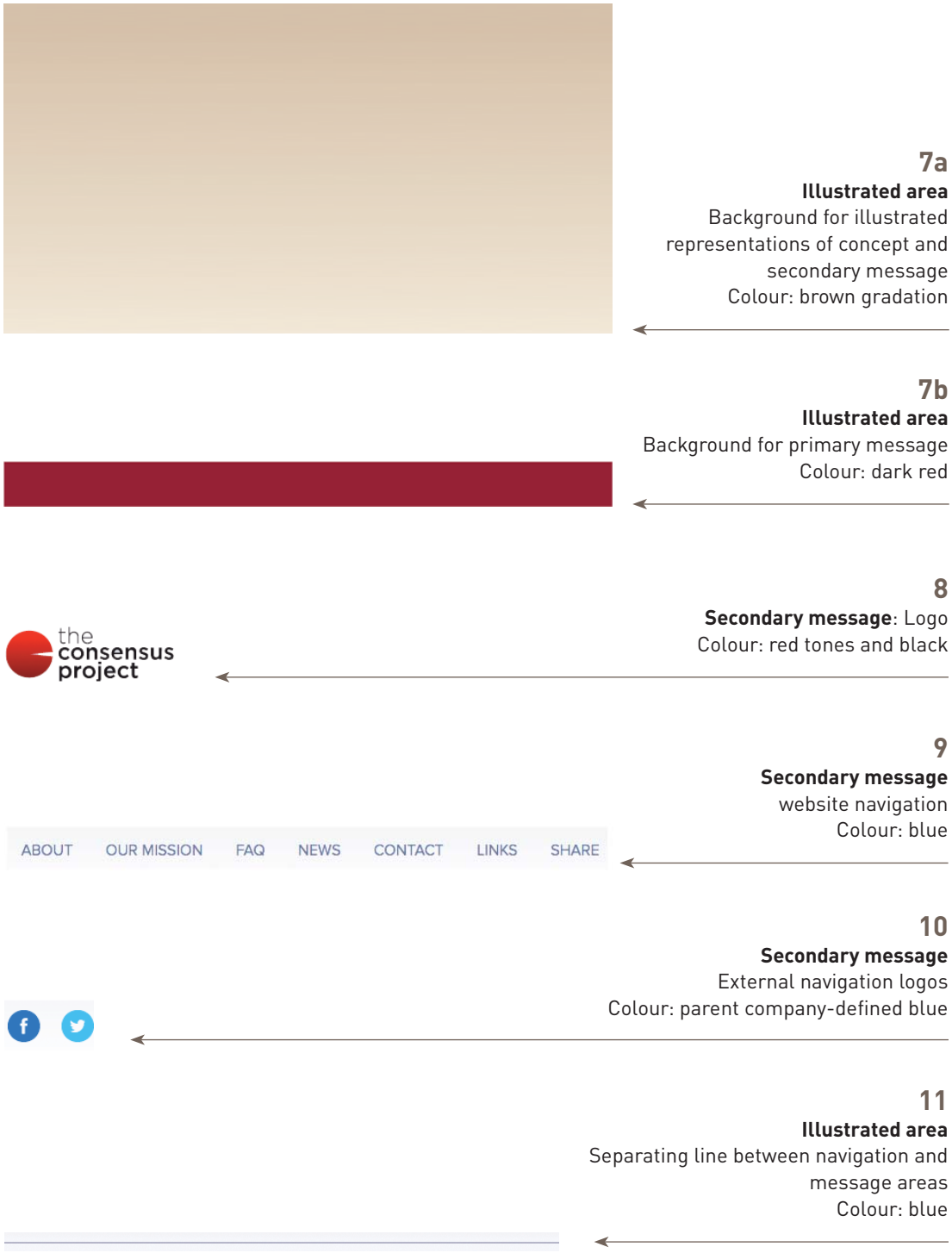



Figure 5-12 (cont'd) Signifier elements of visual artefact 3: *The Consensus Project* (alternate screen)

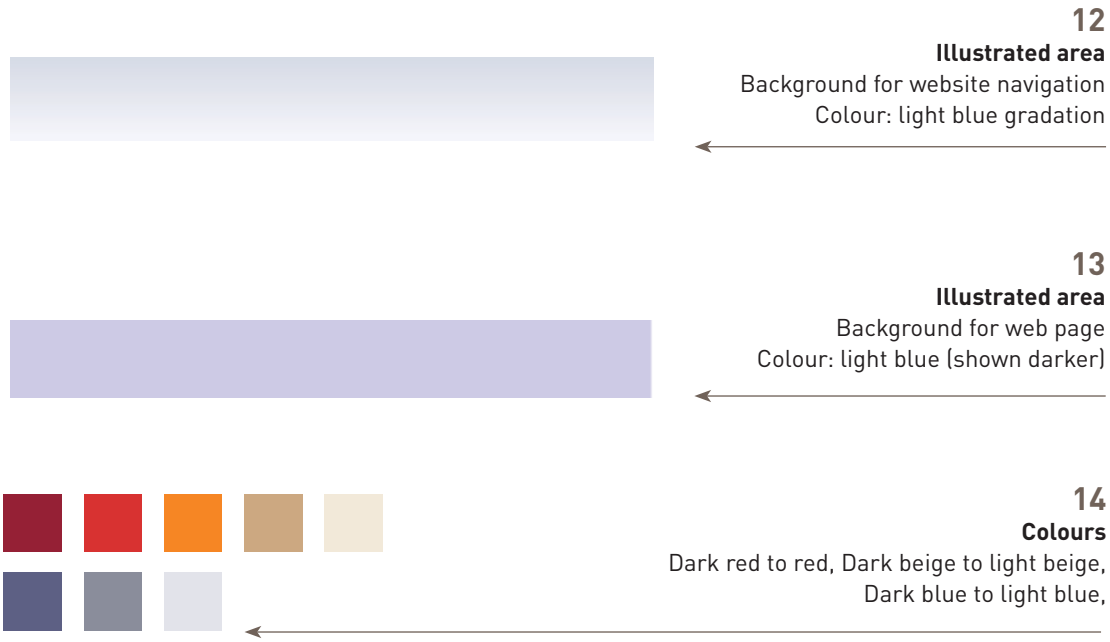



Figure 5-12 (cont'd) Signifier elements of visual artefact 3: *The Consensus Project* (alternate screen)

## Summary

This methodology provided a focus for further analysis that is on the aesthetic style of the visual artefact by deconstructing its visual elements, according to graphic design perspective, and to the individual experiences of the interview subjects. The types of signifier that emerged from this deconstruction can be found in the the typology of signifiers in visual artefacts (Table 5-1 on page 81). These deconstructions and the resulting visual language provide background for further discussion in the following chapter.

### 5.2.5 Typology of signifiers

This typology is a result of dividing each of the visual artefacts into individual signifiers, as seen in the previous section. Assumptions were made on their visual type, for example photographic or illustrative representations, and types were also identified with their rhetorical or non-rhetorical (decorative) purposes. Non-rhetorical signifiers were placed under the general heading of "support imagery". Further groupings were made according to content type. These assumptions made by the researcher, subject to a level of bias were then validated by utterance data from the two sets of interviews with the human actors in the case, whereby discussion of signifiers such as colour or typography, not evident as an individual visual signifier justified their addition to the typology.

The placement of the elements was further grouped according to their position of the spectrum of representational (where the object or referent can clearly be discerned) to abstract (which is not clearly defined and relies on viewer interpretation and understanding, for example of a mutually-agreed written language such as English), or an understanding of the symbolic nature of pie charts and graphs.

Table 5-1. Typology of signifiers in visual artefacts

| Rhetorical Imagery | | | | Rhetorical Text | |
|---|---|---|---|---|---|
| Representative ⟷ Abstract | | | | Primary messages | Secondary messages |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Main heading | Secondary headings, taglines, body of text, logos |

| Support Imagery | | | | | | Other signifiers | |
|---|---|---|---|---|---|---|---|
| Representative ⟷ Abstract | | | | | | | |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Photographic shape/area | Illustrated shape/area | Typography | Colours |

### 5.2.6 Typology of visual signifiers: contributions to new visual language

Visual communication is now such a large part of our society's culture that new systems of language are needed to describe the artefacts of visual communication, or graphic design in the same way that rhetoric and semantics have contributed to written and spoken forms of utterance (Kress and Van Leeuwen 2006; McQuarrie and Mick 2003). This study, following the approach of the visual rhetoric field, borrowed from rhetoric and from semiology to create new terms and types that were used for further analysis within the study (Table 5-1). The intention was not an attempt to 'understand' the artefact itself, but to classify types and terminology for explanation of the meanings and relationships between the artefact, those who produce it, and viewer reception.

Many studies classify visual artefacts in terms of proportion of image to text within a given visual space (for example, Lawson 2012), however a cultural study of the influence of aesthetic style in this type of communication requires a more precise means for classifying individual elements within visual artefacts.

Visual signifiers found in the three visual artefacts were first isolated into image and written text groups. This initial grouping is the reason that the visual artefacts are not called "texts", terminology used in Barthes' writings: a visual artefact has more types of visual elements than found in language-based analyses. "Text" is also one of several terms used for written elements within the field of graphic design. From the two primary groups of image and written text, further subdivisions were made separately as images are potentially more polysemic than words, which derive their preferred reading from a socially-agreed system of language possessed by both the producers and the receivers of the visual artefacts.

Images were first divided in terms of a production technique attribute, for example photographic and illustrated images. In further studies, the illustrated subdivision may potentially venture deeper into types of media used, such as hand-generated (for example pencils, ink, or brush) and computer-generated. For this study, only computer-generated illustrations were used and therefore no further illustration subdivisions were required. However this is likely to be an important attribute for studies that do contain these types of image. Secondly, the images were divided into groups based on their referent, whether it was an image of an existing object referent, or a more abstract concept, such those represented by a graph or chart. The final division was based on whether or not the image was intended to be rhetorical, to persuade the viewer towards one position or another, or a more supportive or decorative image to aid the rhetorical signifiers. Rhetorical and support images were placed in two different subgroups, as they are intended to have different signified messages. Both rhetorical and support images were arranged on a spectrum from abstract to representative.

The text signifiers in all three cases were classed as rhetorical, and were placed to the right of the abstract image end of the rhetorical spectrum. This is because if all rhetorical signifiers are considered on the spectrum, written words and letters are considered to be a more abstract representation of concept than a diagram (Luna and Peracchio 2003). These rhetorical text signifiers were reduced to two types: primary and secondary messages, with a varying number of each depending on the visual artefact. In all three cases in this study, the artefacts contained only one main message. For example, visual artefact 2: *Apology From the Future*'s main message was: "I'm Sorry", with all other text signifiers requiring this heading as the frame.

The visual artefacts contributed to, and were coded according to, the new typology of visual signifiers, with each signifier isolated from the visual artefact to aid comprehension. This coding was a simple way of mapping the visual artefact for further discussion. The codes were applied according to the perception of the researcher, and then cross-referenced with perceptions of the producers where utterances exist.

A common problem with typologies and coding of visual artefacts is that little or no consideration is given to the aesthetic style of the artefact. While the typology of visual artefact signifiers (Table 5-1) classed what type of elements were found within visual artefacts, there is no consideration for how these elements signify their signifieds. If we consider individual visual elements as signifiers, and the actual message as the signified, for example the aged photographic image of Barack Obama (Figure 5-6.1) is a signifier for the concept that this is a future, aged version of the world leader, then we can also apply this semiotic terminology to aesthetic style and the types of rhetorical framing. For example, visual artefact 1: *Keep Buying Shit*, was theoretically selected as an ideal type of the rhetorical framing type of Tragic Apocalyptic rhetoric. The aesthetic style used to create a visual representation of this rhetoric is then the signifier, with the rhetorical framing type as the signified. Because aesthetic style is also polysemic, this may result in a different decoded signified or set of signifieds during the viewers' decoding process.

These results provided key background structure and language for subsequent analysis and discussion of the visual artefacts in this PhD study. The next section used the typology and the deconstructed artefact elements to make further analysis of abstract and representative nature of the whole visual artefacts, and further sections have also used this key backgrounding.

### 5.2.7 Spectrum of signifiers from representative to abstract rhetoric

These results represent the presence of types of visual signifiers in each visual artefact and where they are located in the typology of signifiers (Table 5-1). A typological analysis allowed for overall placement on a spectrum of representative to abstract for rhetorical imagery in the visual artefacts (Figure 5-13), and for support imagery (Figure 5-14). Typography and colours were excluded as they are not imagery and skewed results towards abstract results. This provided structure for discussion on the impact of a more abstract, or more representative artefact on the individual experience of the artefact viewer audience.

Table 5-2. Signifiers found in Visual Artefact 1: *Keep Buying Shit*

| Rhetorical Imagery | | | | Rhetorical Text | |
|---|---|---|---|---|---|
| Representative ← → Abstract | | | | Primary messages | Secondary messages |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Main heading | Secondary headings, taglines, body of text, logos |

| Support Imagery | | | | | | Other signifiers | |
|---|---|---|---|---|---|---|---|
| Representative ← → Abstract | | | | | | | |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Photographic shape/area | Illustrated shape/area | Typography | Colours |

Visual artefact 1: *Keep Buying Shit*

Table 5-3. Signifiers found in Visual Artefact 2: *Apology from the Future*

| Rhetorical Imagery | | | | Rhetorical Text | |
|---|---|---|---|---|---|
| Representative ← → Abstract | | | | Primary messages | Secondary messages |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Main heading | Secondary headings, taglines, body of text, logos |

| Support Imagery | | | | | | Other signifiers | |
|---|---|---|---|---|---|---|---|
| Representative ← → Abstract | | | | | | | |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Photographic shape/area | Illustrated shape/area | Typography | Colours |

Visual artefact 2: *Apology From the Future*

Table 5-4. Signifiers found in Visual Artefact 3: *The Consensus Project*

| Rhetorical Imagery | | | | Rhetorical Text | |
|---|---|---|---|---|---|
| Representative ⟷ Abstract | | | | Primary messages | Secondary messages |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Main heading | Secondary headings, taglines, body of text, logos |

| Support Imagery | | | | | | Other signifiers | |
|---|---|---|---|---|---|---|---|
| Representative ⟷ Abstract | | | | | | | |
| Photographic representation of object | Illustrated representation of object | Photographic representation of concept | Illustrated representation of concept | Photographic shape/area | Illustrated shape/area | Typography | Colours |

Visual artefact 3: *The Consensus Project*

The locations of the signifier elements found in the three visual artefacts were rendered in a more visual way, with overall placement on a spectrum of representative to abstract for rhetorical imagery in the visual artefacts, shown here in Figure 5-13, and for support imagery (Figure 5-14). This raised important findings in the discussion, in particular for visual artefact 3, where some support imagery was interpreted as rhetorical by some viewers, altering the intended abstract rhetorical message.

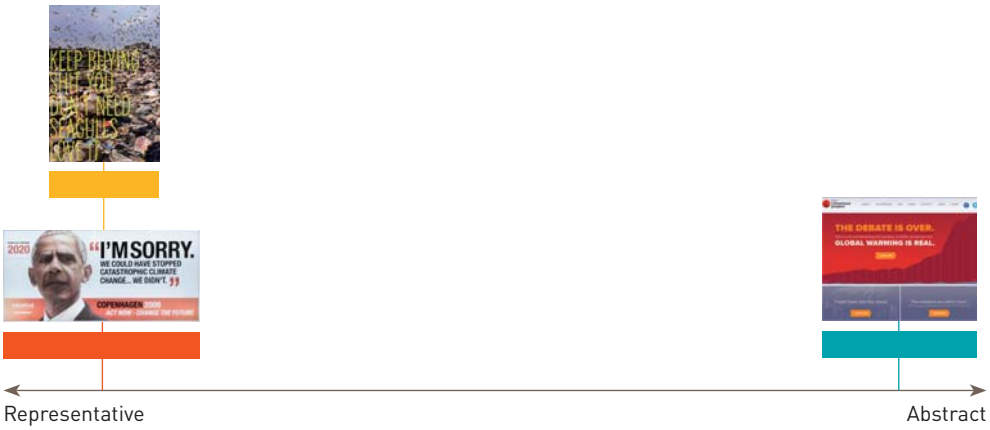



Figure 5-13. Visual artefacts on a scale of abstract to representative in rhetorical image types


Figure 5-14. Visual artefacts 2 and 3 on a scale of abstract to representative in support image types (Visual Artefact 1 contains no support imagery types)

## 5.3 Site of Production

This section of the results commences with a narrative analysis to describe, understand and explain what is occurring in the production of the three selected visual artefacts. Firstly, analysis of the processes and decisions described by the three producers (graphic designers) was made compared to existing understandings of design process. The second part describes technical considerations which may have contributed to judgements and decisions made by the designers during the process. The third part moves to a deeper analysis of the utterances of producers about their design process that related to Mihaly Csikszentmihalyi's idea of 'flow', and the utterances of producers about their design process that related to the more conscious part of the design process. From this analysis, types of creative and non-creative experience or "state" are isolated, and a new logic map of graphic design process is constructed using these different states as a type of building block.

### 5.3.1 Description of process in producer utterances

Initial coding of interview transcripts highlighted any type of explanation for how the visual artefact came to be produced, with theories of habitus and creative process as lenses. This led to the isolation of two main types of utterance surrounding production: that of a conscious application of knowledge and techniques of design; and that of a more subconscious approach, reminiscent of the concept of flow[1] (Csikszentmihalyi 1997) or the insight stage of the five stage model (Wallas 1949).

As mentioned in earlier chapters, Wallas' five stage model (1949) for the creative process, which allows for a non-linear application of these stages, formed a start point for analysis of the data:

1. Preparation: Acknowledgement of problem or set of problems, conscious effort to find solutions;
2. Incubation: No conscious effort to produce, often working on a different project;
3. Insight: Sudden emergence of ideas: "flash of inspiration";
4. Evaluation: Decision on whether the insight has value and deserves investigation, testing;
5. Elaboration: Production stage, conscious development.

Firstly, it was found that the insight stage (3) was a result of three distinctly different approaches for the three producers. Secondly, that habitus was instrumental to both the insight and evaluation stages, and thirdly, that design practice—application of design domain techniques—was as important to the subjects during the stages before the insight stage as the design process model's proposed period of mental incubation. These findings formed the building blocks for a new model of graphic design process (Figure 5-15), which focuses on

[1] Flow, or "the zone", is the feeling of full immersion, or absorption in the activity in which one is engaged (Csikszentmihalyi 1996).

designers' freedom to manipulate creative state types combined with design judgement in any order to achieve a solution.

### Technical limitations of problem or brief

This study investigated what cognitive processes designers used in the production of visual artefacts, and how the aesthetic styles they deployed to translate the artefact's message/s were received by viewers. This section provides results from the interviews with the producers of the visual artefacts, and serves to address initial conscious decisions made due to the technical limitations of each visual artefact in order to highlight their roles as variables to design process and a potential driver for aesthetic style.

The first visual artefact: *Keep Buying Shit*, was a poster produced as an unpaid concept piece for the "Green Patriot Posters" created by The Canary Project in New York (figure 5-1). The producer, Diego, created the poster as an outcome of a university course he was taking while a student at the Rhode Island School of Design (RISD). It had few limitations, as it was a concept piece for upload to the project's website. These limitations included poster dimensions and the ability to be reproduced at full size. This reproduction limitation may have been a contributing factor to Diego's decision to search RISD's image library as his first step in the design process, as opposed to other sources which may not have contained the required amount of digital information for poster-sized professional printing.

The intention was for the posters to follow a set rhetorical frame, however this visual artefact was instead composed without restriction on frame, as the producer considered himself to be in an early "warm-up" stage of the process. The poster was selected for inclusion in the Green Patriot Posters publication after production, however this secondary outcome did not factor into the initial presentation of the design problem. Diego did not have a rushed timeframe within which to complete his visual artefact, he planned to continue developing the concept, but the poster was judged by his peers and by The Canary Project organiser as complete.

> *"I just went to class with that. Then they were like, we love them, these are great, you're done. I was like, really? I thought I was just warming up."*—Diego, producer of visual artefact 1: *Keep Buying Shit*

The second visual artefact: *Apology From the Future* was intended for display in the Copenhagen airport using existing light box technology, where the horizontally-oriented poster is installed in front of white lighting, mounted within a box and attached to the wall (figure 5-4). The producer, Toby, stated that this limitation meant that white areas would be more apparent in this context than other colours.

> *"Well I knew that the panels would be backlit. From previous experience I'd seen stuff which, if you put too much colour in there you lose all that light. So these were kind of tucked away in dark corners so I really wanted them to glare and be noticed. So that was one of the reasons, that's why we used a lot of white space."*
> —Toby, producer of Visual artefact 3: *Apology from the Future*

Toby was given a very tight deadline, with one day to create a concept for a paying client, while still working on other design jobs. The client judged the concept to be worthy of continued development, which was completed within another deadline that Toby deemed to be short. The billboards were shared by journalists across prominent news media of many nations, including those from different language backgrounds, as well as shared through social media. This was an intended outcome for the design, which Toby mentioned was an influence on the "classic advertising" style he used.

Visual artefact 3: *The Consensus Project* was conceived by the producer as a pro-bono project. The New York-based producer, Matt, approached the client based in Brisbane and the project developed according to their own preferred deadlines. The project was conceived as a website, which resulted in a 4:3 proportional rectangle expressed in horizontal form for small screen-based artefacts. This format allowed for animation and interaction, and for secondary messages and information to exist on multiple different pages. For the purposes of comparison for this study, the website was reduced to two static pages, in agreement with the producer.

The technical aspects contributed to the first set of decisions in the designer process, and to the aesthetic styles of the visual artefacts. These considerations at the initial stages of graphic design process were a conscious application of the experience and knowledge of each of the three designers. This set of conscious decisions was discussed as preceding commencement of idea generation, and can be compared with the first, preparation stage of the Wallas five stage model (1949). The section now moves further into the process through which the human agents created and produced the visual artefacts.

### Three different approaches to design process

The first building block of the new model of design process (fig 5-15), creative state types, was revealed in the examination of the terms and concepts the designers used to describe how they formed their design solutions. Mihaly Csikszentmihalyi's investigations in his book *Creativity* (1996) examined the seemingly automatic nature of the state that he termed "flow". His interview subjects used descriptive terminology that was also found in the utterances of the visual artefact producers when asked about how they came to their solutions. These terms became the central terms for "creative flow" coding, and similar phrasing or concepts found in the interviews were included in this coding. Examples of these are outlined in Table 5-6, and all utterances can be found in Appendix E. Concepts common to the utterances found in both studies were isolated and an interesting pattern emerged. The producer

of visual artefact 1 discussed his process using a greater amount of creative flow coded descriptors than the producer of visual artefact 2. The producer of visual artefact 3 did not use any creative flow coded descriptors at all (Table 5-5).

Table 5-5. Number of creative flow descriptors found in producer utterances

| Visual artefact | Visual artefact rhetorical frame | Creative flow descriptors |
|---|---|---|
| **Visual artefact 1:** *Keep Buying Shit* | Tragic apocalyptic rhetoric | 11 |
| **Visual artefact 2:** *Apology from the Future* | Comic apocalyptic rhetoric | 3 |
| **Visual artefact 3:** *The Consensus Project* | Values-based rhetoric | 0 |

Table 5-6. Examples of terminology and concepts appearing in both Csikszentmihalyi study and the PhD study (all utterances can be found in Appendix E).

| Examples of Csikszentmihalyi study utterances | Examples of producer utterances |
|---|---|
| It just sort of happens | It just worked automatically |
| So the original design is somehow accidental | I mean, it's such a fluky project |
| Lost in the process | Lost in the process |
| You don't really think of what you are going to write. You just scribble, the equations lead the way... | You have to get in a rhythm and start just cranking stuff out and not hold back |
| You have that feeling that there's no other way of saying what you're saying | But you know when you get that feeling about something |

These utterances, as shown in table Table 5-6, were made by producers of visual artefacts 1 and 2. These two designers shared some similar qualities (Table 4-6), in that they were both formally educated in design, and both were operating to a deadline. Both also employed the apocalyptic type of rhetoric to convey their messages, and both used photographic representation signifiers in their visual artefacts.

The first designer (Diego) was a design student at the time of the production of his poster, visual artefact 1: *Keep Buying Shit*. Diego used a process whereby he deliberately generated a state of creative flow, which can be termed a "forced flow state". He also stated that he attempted to avoid judgement, which Csikszentmihalyi (1997) explains is the enemy of creativity. As discussed in the previous section, Diego may have made a decision to search the RISD image library as opposed to other sources due to the technical limitation of reproduction, a conscious decision that was technical, rather than creative.

> *"I basically went to the image library, picked out a stack of images that were just polar bears and things that looked wrong – disasters and stuff like that. I was trying to just get into the mode. I just flipped them and as I saw them really quickly jotted down whatever came to mind. That's how I came up with the copy element. It was really just struck at the moment. I didn't finesse it, think about it."*
>
> —Diego, producer of visual artefact 1: *Keep Buying Shit*

The designer of visual artefact 2: *Apology from the Future*, Toby, described a different entry point to his creative flow state. His was not forced, but as he was operating under a short timeframe imposed by his client, he simply stated working on developing any ideas that might suit the problem. This state was termed "conscious practice". Toby moved naturally into a creative flow state from this conscious practice and, due to a very short deadline timeframe, did not use a relaxed period of incubation after the preparation stage. The idea still originated within the creative flow state, and Toby used the type of utterances that fit within the flow concepts of the Csikszentmihalyi (1997) study. This state can be termed "organic flow state", as Toby moved naturally into that state by working on possible solutions within a conscious practice state.

> *"...they just said "Look, we've had a brainstorm and we can't think of anything, you are in Australia can you come back with us with something the next day?" So I came up with this really terribly done, because I'd had the idea in the evening and then, no, it was during the day, and then I had to knock something up really, really quickly...*
>
> *I think I probably would have concentrated more on the typography but I just felt like I did a few designs and every time I did it when I added something I felt like it took away from the idea. So it looked nicer but it wasn't so punchy."* —Toby, producer of visual artefact 2: *Apology from the Future*

This type of creative state, conscious practice, was also isolated in the discussion with visual artefact 3: *The Consensus Project* designer, Matt. This state involved an approach to the problem from a technical perspective, and Matt referred to design and aesthetic style solutions used on a semi-regular basis by the design firm. He quickly moved to a stage more aligned with the "Evaluation and Elaboration" stages of the process.

> *"It seemed that the quantity and the potential complexity of the message was such that we didn't want to make the graphics overly complex, because that would make it even worse. And we wanted somebody to, at a glimpse, to just understand the 97 per cent as simply as possible. We also had the idea obviously of making it clean enough so that we could play with social media messages within it."* —Matt, producer of visual artefact 3: *The Consensus Project*

Tables 5-7 and 5-8 show the amount of conscious practice descriptors that each of the visual artefact producers used in describing their process, and examples of these utterances. Coding terms for "conscious practice" included use of terminology that evokes conscious decisions, such as "think", as opposed to "feel", or "automatic". Examples of these are outlined in Table 5-8, and all utterances can be found in Appendix F.

Table 5-7. Number of conscious practice descriptors found in producer utterances

| Visual artefact | Visual artefact rhetorical frame | Conscious practice descriptors |
|---|---|---|
| **Visual artefact 1:** *Keep Buying Shit* | Tragic apocalyptic rhetoric | 4 |
| **Visual artefact 2:** *Apology from the Future* | Comic apocalyptic rhetoric | 7 |
| **Visual artefact 3:** *The Consensus Project* | Values-based rhetoric | 4 |

Table 5-8. Examples of utterances reflecting a conscious practice, from Appendix F

| | Examples of conscious practice utterances by producers |
|---|---|
| **Visual artefact 1:** *Keep Buying Shit* | I moved it a little bit and there was a little spacing between the letters. I gave it the right air so you could still see the image. And the typeface, it was Interstate. |
| | It's the go-to font, from time to time. |
| | In your mind, the way things start bouncing around and then you're like, oh that's it. It relates back to Moby Dick. I'm going with white. |
| **Visual artefact 2:** *Apology from the Future* | Well I knew that the panels would be backlit. From previous experience I'd seen stuff which, if you put too much colour in there you lose all that light. |
| | No, basically I will just come up with an idea and bounce it off someone. |
| | Yeah, so mine is kind of minimalist, I'll do it, strip everything away, put it back in and I suppose that for me is the style, the idea comes first. |
| | And I literally within the day that I had left and crossed over to being like freelance with them, like, they asked me to have the idea, they just said "Look, we've had a brainstorm and we can't think of anything, you are in Australia can you come back with us with something the next day?" So I came up with this really terribly done, because we'd had the idea, well I mean I say we but it's me, in the evening and then, no, it was during the day, and then I had to knock something up really, really quickly and I was doing other work so it was just this terrible, terribly done Photoshop with some really, and I'd come up with a few other lines as well like, I can't remember what they were now |
| **Visual artefact 3:** *The Consensus Project* | Certainly infographics and pictograms and things like that have been kind of in style the last few years. It's something we do go to a lot. We also do lots of animation work, so typically either our clients are in entertainment and they do have assets. Or they don't have any assets, in which case having infographics to animate can still work out. |
| | We gave them three versions but they were all basically in this style. |

These results show that three different approaches to idea creation were used for three different solutions, indicating that there are many more possible combinations of idea creation states. Producers processes show three combinations made from the three types of creative state: the two creative flow state types (organic and forced), and the conscious practice state (Figure 5-16).

The second building block to the new model is design judgement as a different type of method applied in the design process. Judgement is a way of making decisions that differs for each individual and that does not rely on any defined rational or logical system (Nelson and Stolterman 2003). Judgement can be based on experience, understanding of domain, beliefs and dispositions. Both Csikszentmihalyi and Lawson note that judgement is the retardant to creativity (Lawson 2005; Csikszentmihalyi 1996), and Lawson proposes that without judgement, the creative process could go on forever. Nelson and Stolterman (2003) also propose that judgement is a key element to all stages in the design process, which the new model demonstrates.

The first designer, Diego, was mostly free of personal application of design judgement, as he assumed he was still in the early stages of process and was seeking supervisory and peer design judgement on what he considered to be early ideas. Responsibility for design judgement rested with his class lecturer, who was also the client and a senior member of the graphic design field.

> "*This piece is really process. There were ideas of where it was going to go beyond this but then in the class everyone just received it and was into it and Edward loved it. He's like, we're going with it... I was like, really? I thought I was just warming up*." —Diego, producer of visual artefact 1: *Keep Buying Shit*

Diego mentioned that he intended them to be a set of ideas that worked together. His understanding of why the lecturer/client chose that one design was that the other similar concepts he had created contained rhetorical imagery that was very violent, and would likely not appeal to audiences.

The process model for visual artefact 1: *Keep Buying Shit* (Figure 5-17) shows how Diego moved from the presentation of the problem by making a technical judgement of type of creative process he was going to apply, which was a forced creative state. A series of ideas emerged during the forced creative state, which was judged to be a coherent initial idea by others in his field, both senior and peers. After this stage, Diego then moved through further conscious practice states to refine the technical aspects of the idea into a solution, and final design judgement of the completed piece occurred. Diego deliberately focused on the process as a means of generating ideas, rather than on the techniques or ideas themselves, which can be considered a process-based approach. Judgement was made by a senior design figure, as well as by Diego's peers, allowing Diego a freer creative process, unrestrained by self-judgement.

In contrast, Toby's approach (Figure 5-18) moved from presentation of the problem to the technical decision of working directly and quickly on ideas, or conscious practice. From conscious practice, Toby progressed into an organic flow state from which his main idea emerged. Toby judged this idea to be a workable solution, and sought a secondary design judgement from an individual outside the design field. Toby sought a third judgement from his client, who also agreed and the idea was developed to completion through conscious practice and final design judgement. Toby focused on what will be termed an idea-based approach and let the process itself occur organically.

The third designer, Matt, also used an idea-based approach (Figure 5-19), but design judgement was made immediately after presentation of the problem as to what that idea would be. This was then applied using conscious practice, with design judgement stages of the designer and the client as part of the process.

This interplay between the creative states of creative flow, conscious practice, and the design judgement states comprise the basic building blocks of graphic design process (Figure 5-15).

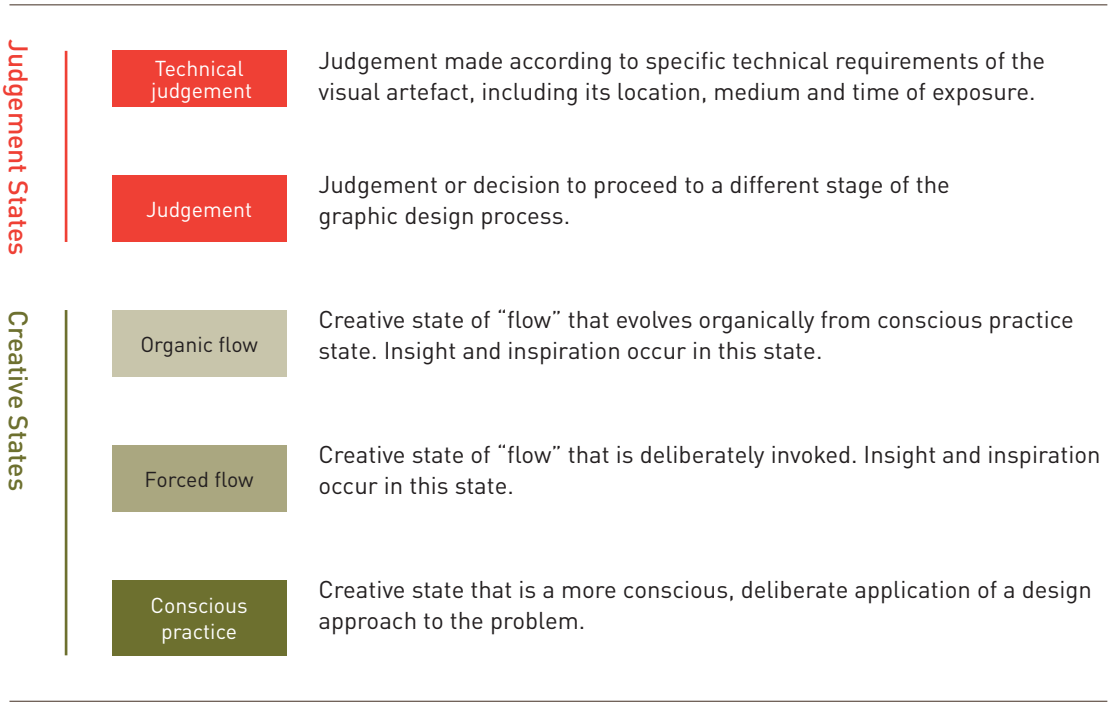



Figure 5-15. Building blocks of the graphic design process

### 5.3.2 Description of conscious practice process by producers

The graphic design process building blocks—resulting from analysis of the utterances of producers (Figure 5-15)—were assembled into a logic map that displays the stated creative processes of the three producers (see Appendix E and Appendix F for all utterances). Figure 5-16 shows the overall process diagram that encompasses all processes as described by the three producers in designing their visual artefacts. Judgement is indicated in red and is the logical terminal for each creative state, indicated in green. These building blocks can be arranged in any number of ways, including much more complex versions. All three designers, in line with theory, moved between creative state and judgement state until the final judgement state signalled the completion of the visual artefact. Their individual creative processes can be seen in Figures 5-17–5-19.

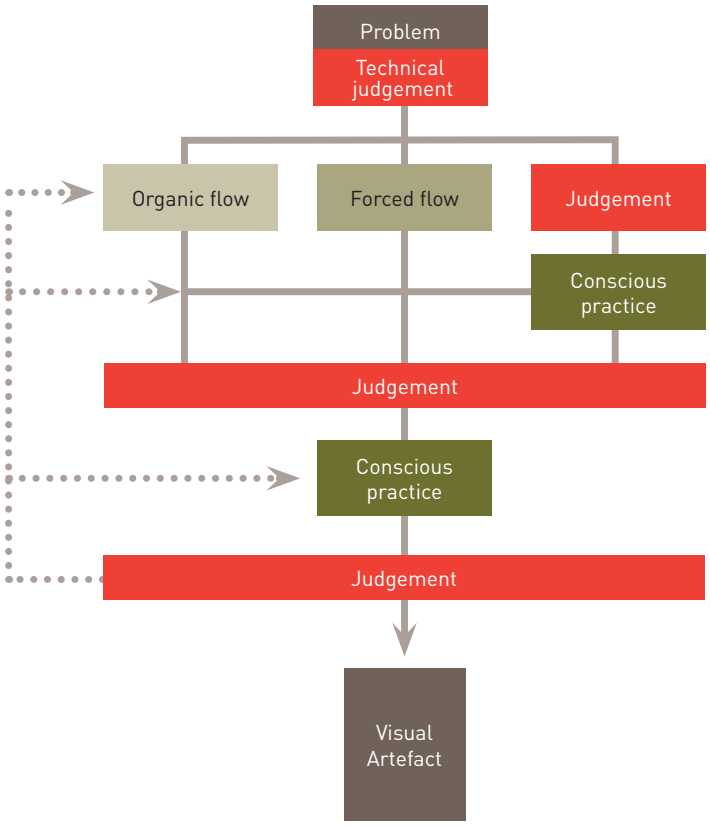



Figure 5-16. Logic map of design process described by all three producers

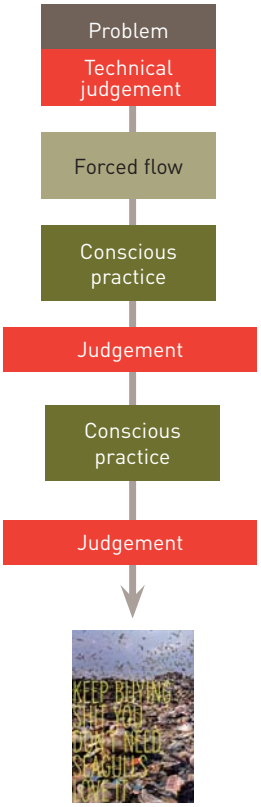



Figure 5-17. Logic map of design approach for Producer 1 (Diego: *Keep Buying Shit*)

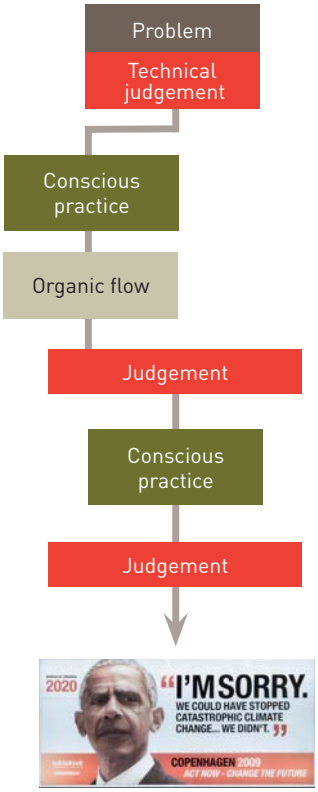



Figure 5-18. Logic map of design approach for Producer 2 (Toby: *Apology from the Future*)

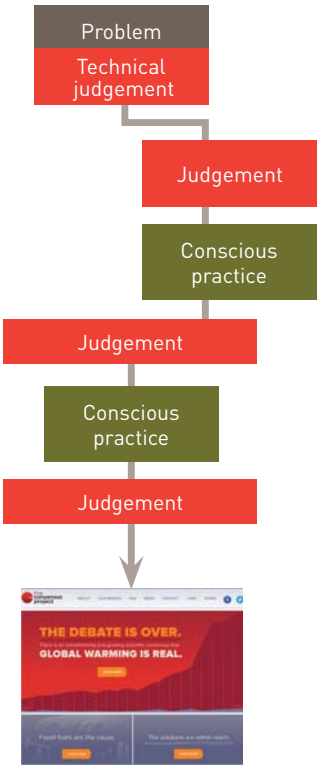



Figure 5-19. Logic map of design approach for Producer 3 (Matt: *The Consensus Project*)

### 5.3.3 Intended order of reception for all visual artefacts

Producers of the three visual artefacts were asked general questions about each visual artefact throughout the semi-structured interview. The order in which they referred to each signifier in their visual artefact was identified in the transcript and expressed here using both visual representation and the type of signifier. Where specific discussion of how the producer intended the visual artefact to be read occurred, this data overrode identified order of utterances. No questions asked for the producer's intended order of viewing.

These orders of viewing are particularly useful as background results for comparison with how the visual artefacts were then received by the nine viewer participants. These results can be found in section "5.4.3 Producer encoding compared to viewer decoding of artefacts", and reveal differences in the encoding and decoding experiences, as well as the variety of different decoding experiences between the nine viewers.


Figure 5-20. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 1: *Keep Buying Shit*

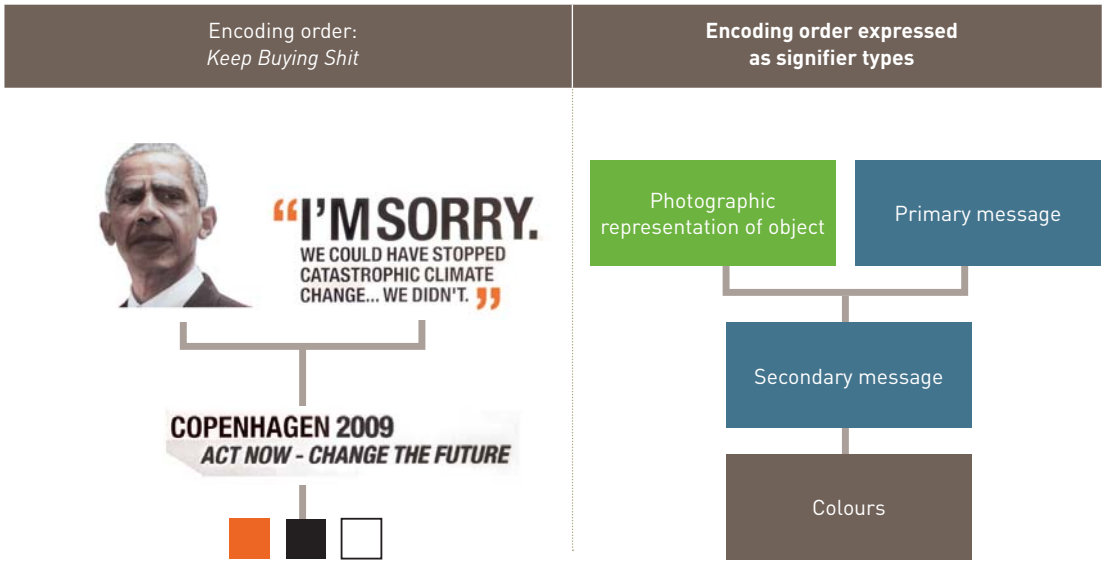



Figure 5-21. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 2: *Apology from the Future*

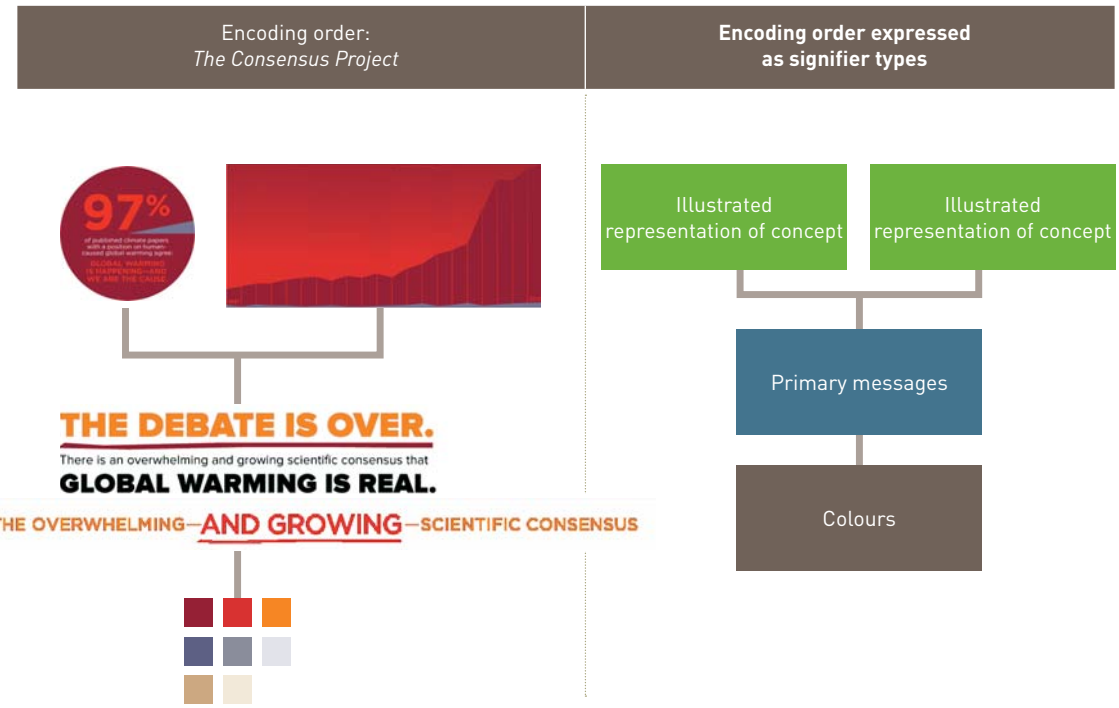



Figure 5-22. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 3: *The Consensus Project*

## 5.4 Site of Reception

This section details the results of interviews with nine theoretically-selected viewers during a forced exposure to the three visual artefacts, reconstructing the instance of reception of these three cases.

### 5.4.1 Viewer aesthetic preference between the three visual artefacts

During the primary exposure to the three visual artefacts, viewers were asked to select which visual artefact they would like to discuss first, with the knowledge that all three visual artefacts would be discussed during the interview. The order in which they selected these artefacts for discussion was called "viewer preference", and is summarised in Figure 5-23, and actual individual choices are displayed in Table 5-9.

Five viewers selected visual artefact 1: *Keep Buying Shit* as the first choice for discussion, with four of them from the London group. In the Brisbane group, the most common first preference was visual artefact 3: *The Consensus Project,* however the same number of viewers also placed it last in their preferences. Most viewers from both groups selected visual artefact 2: *Apology From the Future* as the second preference, and visual artefact 3: *The Consensus Project* was the least preferred of the artefacts from an initial aesthetic perspective. (For detailed discussion of the selected viewers from both locations, see page 55—58).

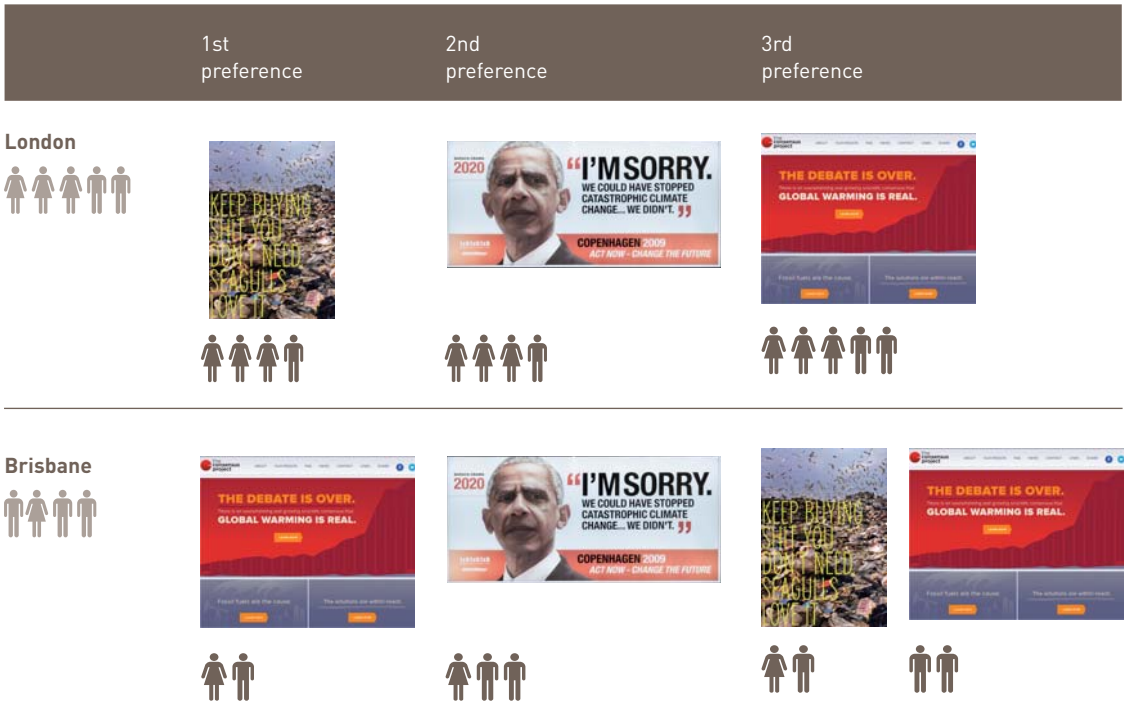



Figure 5-23. The artefact most preferred by viewers at first glance, followed by the artefact most preferred by viewers as the second choice, followed by the artefact least preferred by viewers.

Table 5-9. Order of individual aesthetic preference of visual artefacts by viewers

| Viewer | 1st preference | 2nd preference | 3rd preference |
|---|---|---|---|
| L1 |  |  |  |
| L2 |  |  |  |
| L3 |  |  |  |
| L4 |  |  |  |
| L5 |  |  |  |
| B6 |  |  |  |
| B7 |  |  |  |
| B8 |  |  |  |
| B9 |  |  |  |

## 5.4.2 Order of viewing the visual artefacts

### Individual viewer experience

During the secondary exposure, each viewer was engaged in discussion of one visual artefact at a time. The order in which they referred to signifier elements within the visual artefact was identified in the transcript, and expressed using both visual representation and the types of signifier found in Table 5-1. An example of the visual representation of the viewing order for viewer L1 is found in Figure 5-24, accompanied by their utterances describing the signifiers in Table 5-10. The remaining representations and utterances for each viewer across all three visual artefacts are located in Appendix O, Appendix P and Appendix Q.

These results serve as background for comparisons between the intended, or encoded order of viewing as indicated by the producer, and the received, or decoded order of viewing as described by the viewers are found in the following sections, from Figure 5-25 to Figure 5-27. They show many different experiences in the viewing of these visual artefacts.

A secondary analysis of this order of viewing added key depth to the findings. The data were combed again to find the exact point where discussion moved from description of the signifiers as physical elements, to discussion relating with the signifier (or signifiers) in a personal way. This is marked in the example (Figure 5-24) as a dotted line, and termed the "Point of Conversion". This analysis exposed patterns—through display of the exact visual that triggers deeper engagement with the artefacts—when comparisons across viewers for each visual artefact were made. These comparisons can be found in "5.4.4 The Point of Conversion from descriptive to relative", following these order of viewing results.

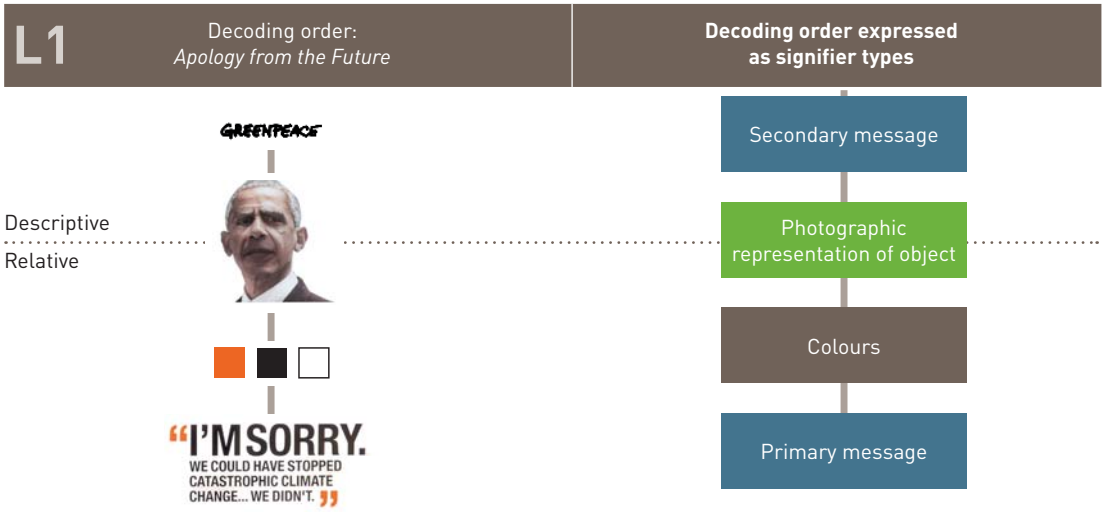



Figure 5-24. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L1 viewer based on order of utterances in Table 5-10

Table 5-10. Decoding: utterances of L1 viewer about visual artefact 2: *Apology from the Future*

| **L1:** *Apology from the Future* **utterances** |
|---|
| Whereas this one, it's obvious. Greenpeace have got their name in it. They've obviously got a vested interest, but they're being more open and honest. |
| Disappointment in our political system as an ongoing thing. |
| I like the colours. I like the fact they're using people that ultimately have the sort of aye or nay. They're the decision makers in regards to the hierarchy side of things. I like that. It's sort of reaffirmed that they're accountable for this, as well as us. And I like the whole I'm sorry thing, because you don't really hear that an awful lot from a politician so it's interesting. It draws you in. |

### 5.4.3 Producer encoding compared to viewer decoding of artefacts

In section 5.3.3 , data were used to identify the order of viewing intended by the designers of the visual artefacts, called "encoding". On the following pages, encoding data were compared with data from section 5.4.2, the decoding of the visual artefacts. From this comparison, it is immediately apparent that all three artefacts were decoded in different ways to the producers' intentions. Visual Artefact 1: *Keep Buying Shit*, although containing fewer signifiers than the other artefacts, still was decoded differently. Viewers unexpectedly referred to the typography and the colours with some regularity, indicating a more sophisticated response. This sophistication was also likely influenced by the interview context, whereby the viewers were aware that the study was interested in their responses to designed artefacts.

Viewers decoded Visual Artefact 2: *Apology From the Future* in a more linear, sequential progression than they did Visual Artefact 3: *The Consensus Project*, which provoked discussion of several objects either as a group, or within the same sentence and context. There was a comparatively greater departure from the encoding for visual artefact 3, which might be attributed to a higher number of signifiers, several messages and images within the artefact, and the lack of photographic imagery.


Figure 5-25. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 1: *Keep Buying Shit* (at top left) compared with viewer order of reception (decoding).


Figure 5-25 (cont'd) Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 1: *Keep Buying Shit* compared with viewer order of reception (decoding).

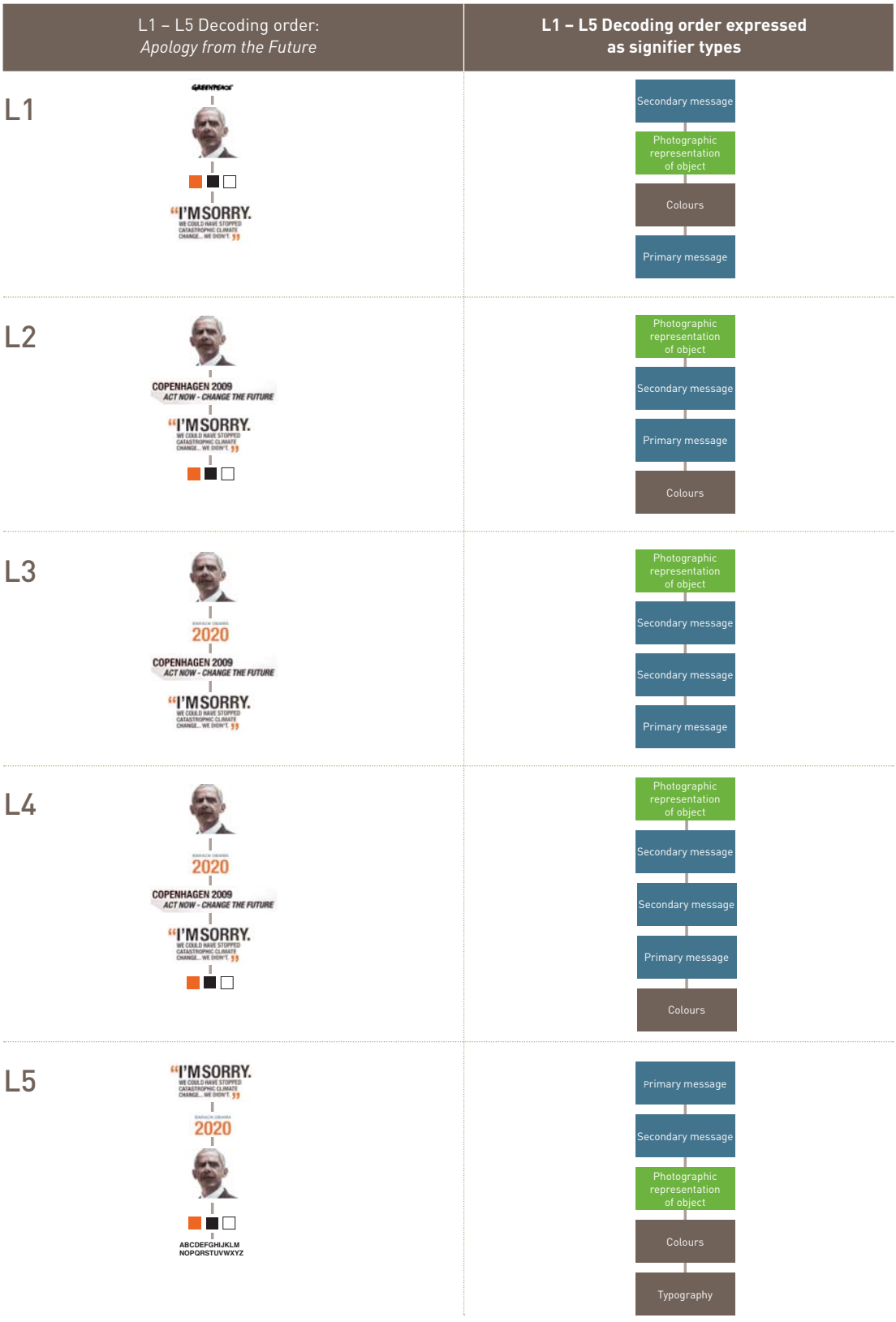
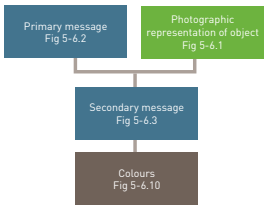



Figure 5-26. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 2: *Apology from the Future* compared with viewer order of reception (decoding).

| Encoding order:<br>*Apology from the Future* | **Encoding order expressed as signifier types** |
|---|---|
| Toby   |   |

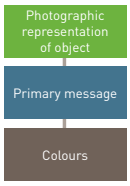
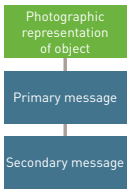
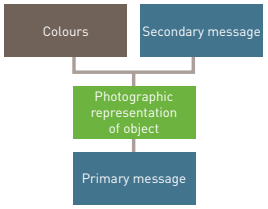
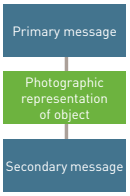
| B6 – B9 Decoding order:<br>*Apology from the Future* | **B6 – B9 Decoding order expressed as signifier types** |
|---|---|
| B6   |   |
| B7   |   |
| B8   |   |
| B9   |   |

Figure 5-26 (cont'd) Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 2: *Apology from the Future* compared with viewer order of reception (decoding).

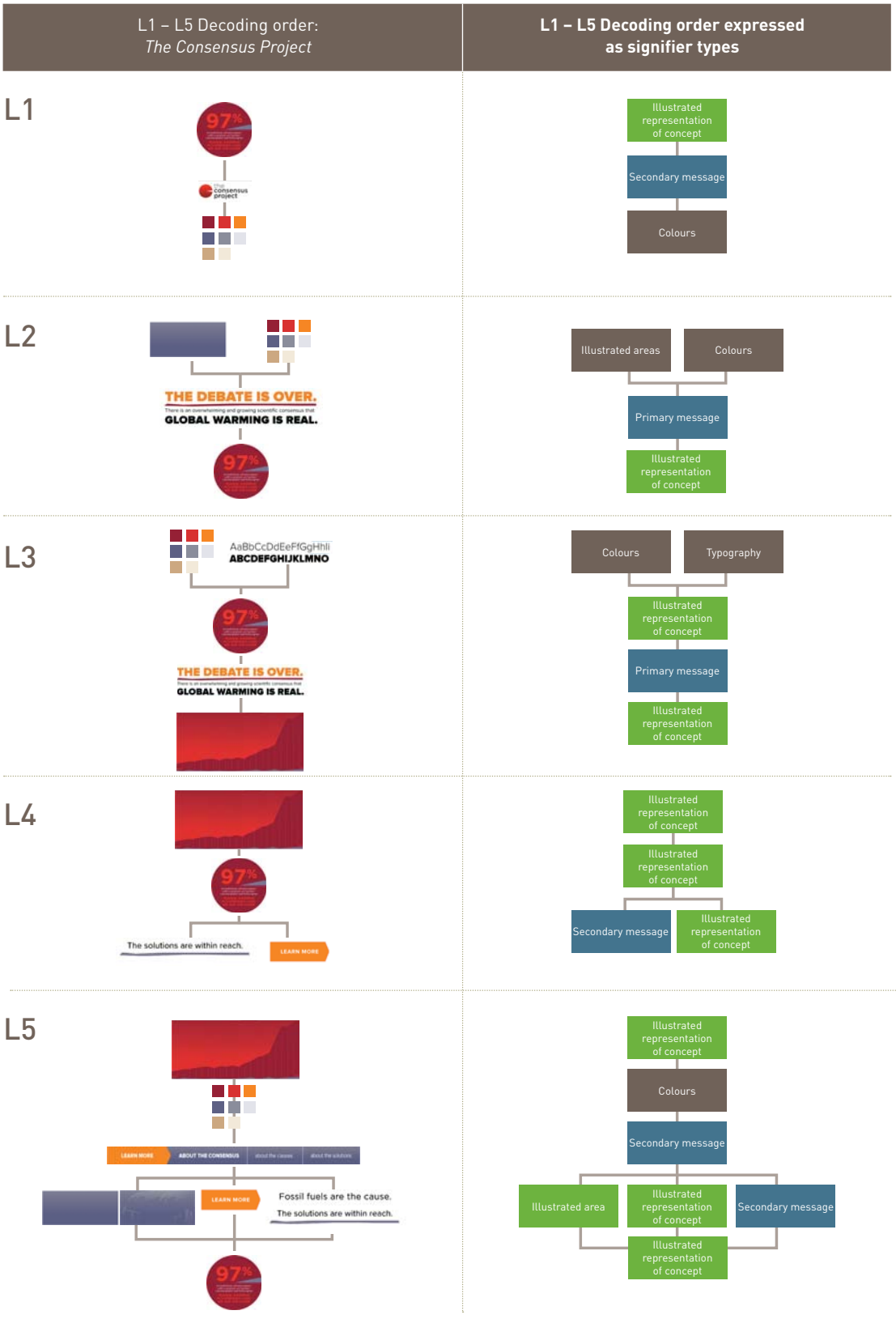
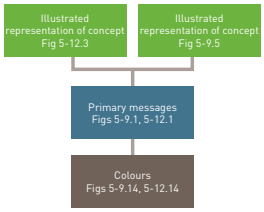



Figure 5-27. Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 3: *The Consensus Project* compared with viewer order of reception (decoding).

| Encoding order:<br>*The Consensus Project* | **Encoding order expressed as signifier types** |
|---|---|
| Matt  |  |

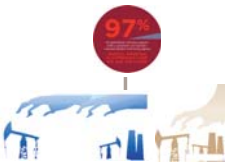
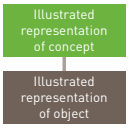
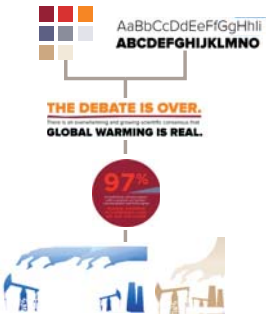
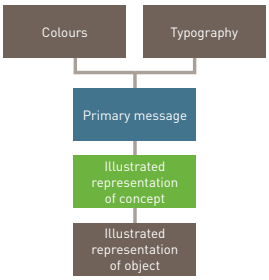
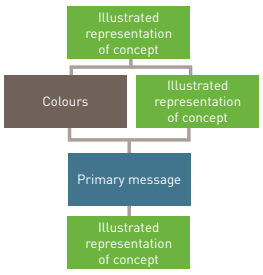
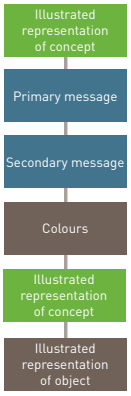
| B6 – B9 Decoding order:<br>*The Consensus Project* | **B6 – B9 Decoding order expressed as signifier types** |
|---|---|
| B6  |  |
| B7  |  |
| B8  |  |
| B9  |  |

Figure 5-27 (cont'd) Encoding: intended order of reception of visual artefact elements by the producer of visual artefact 1: *Keep Buying Shit* compared with viewer order of reception (decoding).

### 5.4.4 The Point of Conversion from descriptive to relative

The Point of Conversion is the point of change in viewer utterances, where discussion turns from a description of signifiers, to a personally-relative account of the signifier, sign or visual artefact. Here, the two examples (Figure 5-28 and Figure 5-29) demonstrate that these two viewers discussed different signifiers in a different order, and that the point of conversion was also different, although it was the same signifier type—illustrated representation of concept—that contributed to the change in viewer engagement (see Appendix O, Appendix P and Appendix Q).

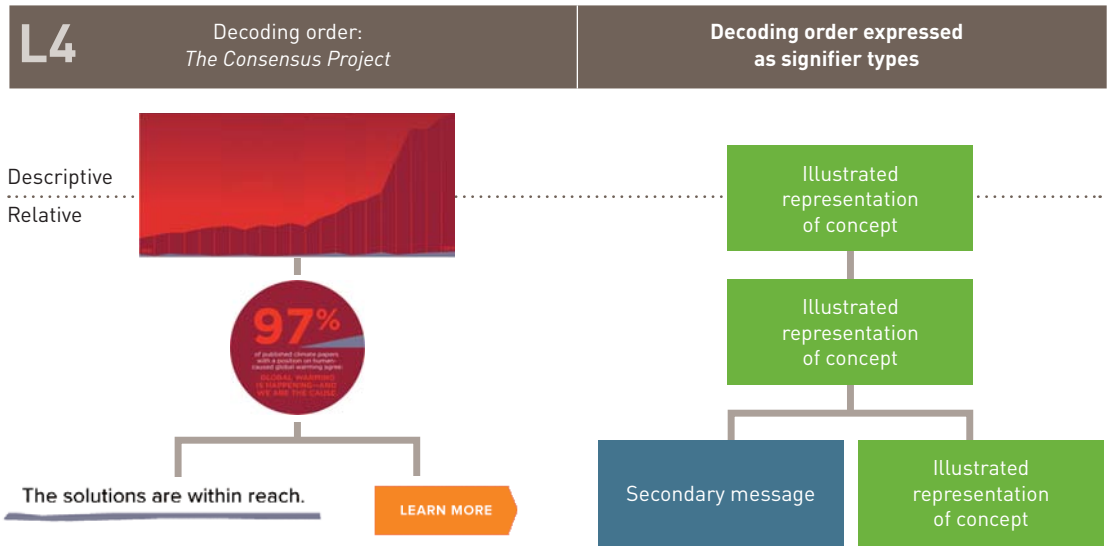



Figure 5-28. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by L4 viewer based on order of utterances in Table 8-24

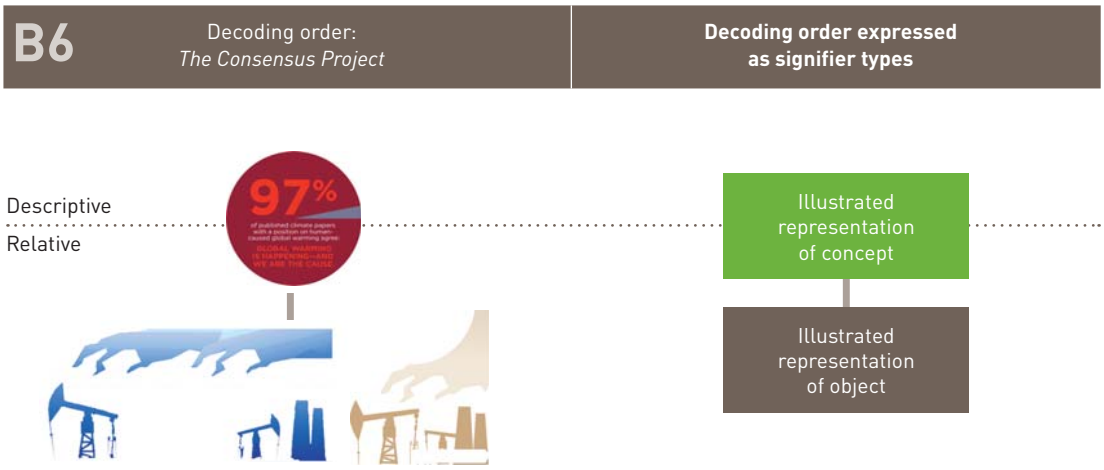



Figure 5-29. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by B6 viewer based on order of utterances in Table 8-26

The signifiers at the point of conversion were isolated for each viewer and combined for comparison in a table on the following page (Table 5-11). Table 5-12 displays the same data as signifier types instead of as the actual visual representations. The implications of theses results are discussed in the following chapter, however what can be understood at this stage in the analysis is that, while this transformation from one level of engagement to another is not a new theory, the methodology employed in this study allows for the visual element that is the turning point for this change to be identified and isolated for further analysis.

The data showed that each viewer followed a process of first describing the signifiers present in the visual artefacts, followed by a point at which their discussion moved to a personal relation to the signifier, or the meaning they were drawing from it. The signifier shown is the exact artefact element that the viewer was addressing when this discussion changed. Common themes are immediately visible in these data: the photographic representation signifier was a common turning point in visual artefact 2, which is an ideal type for this part of the investigation, as it has a good spread of the signifier types found in the typology in Table 5-1. Visual artefacts 1 and 3 are less ideal types, as they both display a limited selection of these signifiers. Visual artefact 1 has only two signifier types, and is placed at the representational end of the spectrum (Table 5-2 and Figure 5-13). The point of conversion from descriptive to relative is evenly distributed between the two signifiers in this artefact. Visual artefact 3 has no photographic representations of object, rendering it a more abstract artefact on the rhetorical image spectrum (Table 5-4 and Figure 5-13) than the other two. The more abstract nature of the aesthetic style of the multiple elements may have contributed to a much more varied point of conversion across the group of viewers.

Table 5-11. Signifier at which discussion turns from descriptive to relative.

| Viewer | Visual artefact 1: *Keep Buying Shit* | Visual artefact 2: *Apology from the Future* | Visual artefact 3: *The Consensus Project* |
|---|---|---|---|
| L1 |   |  |   |
| L2 |   |  |   |
| L3 |  |  |   |
| L4 |  |  |  |
| L5 |   |  |  |
| B6 |  |   |   |
| B7 |   |  |   |
| B8 |   |  | Illustrated representation of concept (not specified) |
| B9 |  |  |   |

Table 5-12. Signifier type at which discussion turns from descriptive to relative.

| Viewer | **Visual artefact 1:** *Keep Buying Shit* | **Visual artefact 2:** *Apology from the Future* | **Visual artefact 3:** *The Consensus Project* |
|---|---|---|---|
| L1 | Primary message | Photographic representation of object | Illustrated representation of concept |
| L2 | Primary message | Photographic representation of object | Primary message |
| L3 | Photographic representation of object | Photographic representation of object | Primary message |
| L4 | Photographic representation of object | Photographic representation of object | Illustrated representation of concept |
| L5 | Primary message | Photographic representation of object | Secondary message |
| B6 | Photographic representation of object | Primary message | Illustrated representation of concept |
| B7 | Primary message | Photographic representation of object | Primary message |
| B8 | Primary message | Photographic representation of object | Illustrated representation of concept |
| B9 | Photographic representation of object | Photographic representation of object | Primary message |

### 5.4.5 Trust of principal and/or message

This section of results refers to the utterances of viewers speculating at the principal of each artefact, and responding to the question of whether or not they trust the visual message and/or the principal from whom the message originates (see Appendix B). The level of trust is expressed on a spectrum from "trust" to "no trust" (dark grey icons) and compared with the positions the viewers originally stated in regards to agreement with ACC (light grey icons) (see Figure 4-19).

These results provide a basis for discussion surrounding the difference for some viewers between belief in ACC and trust of a message that is aligned with, or promoting ACC belief. Visual artefact 1: *Keep Buying Shit* received the most trusting responses, followed by visual artefact 2: *Apology From the Future*. Visual artefact 3: *The Consensus Project* was the least trusted artefact in comparison. For viewer B8 in visual artefact 1, there was no trust in the message, yet the viewer expressed a position that mostly aligned with ACC. A similar phenomenon occurs in Figure 5-32, where L1 agrees with ACC, but does not trust the message or the principal in visual artefact 3. Potential reasons for these trust levels are exposed with further cross-comparison of these results with other types of result in the following sections.

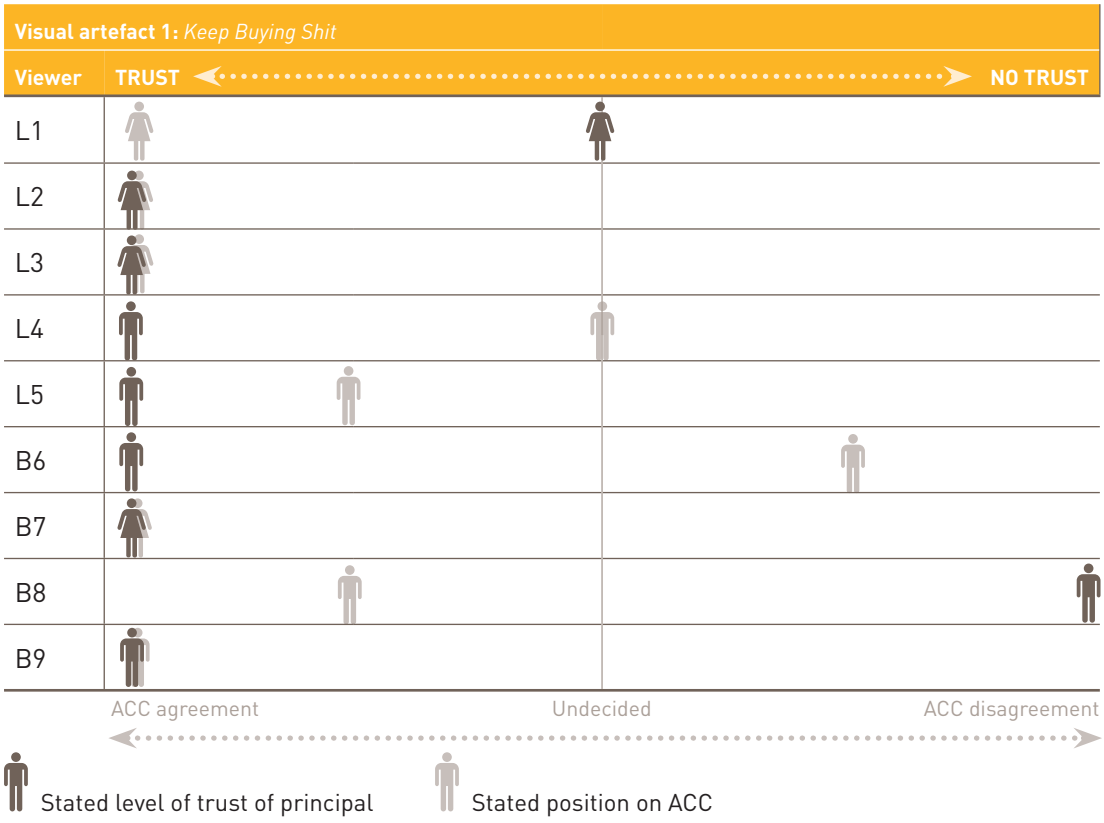



Figure 5-30. Viewers' stated position of trust of principal and/or message for visual artefact 1 compared with their stated position on ACC.

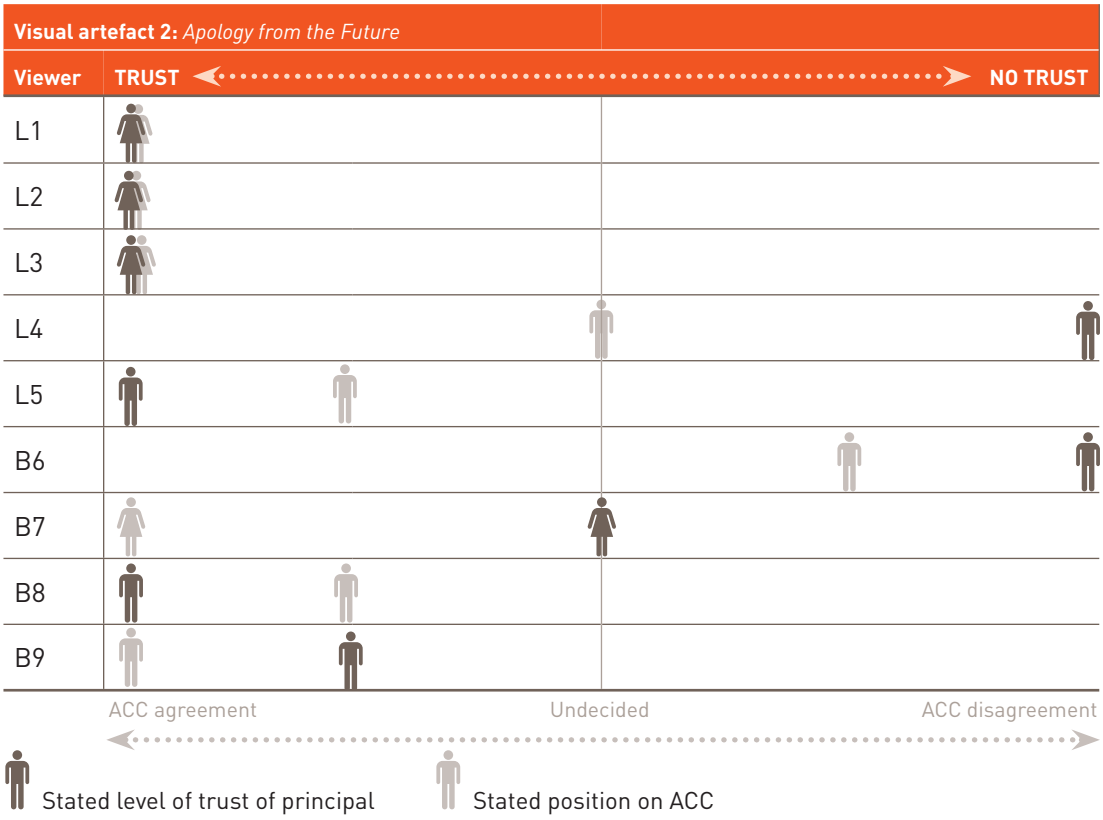



Figure 5-31. Viewers' stated position of trust of principal and/or message for visual artefact 2 compared with their stated position on ACC.

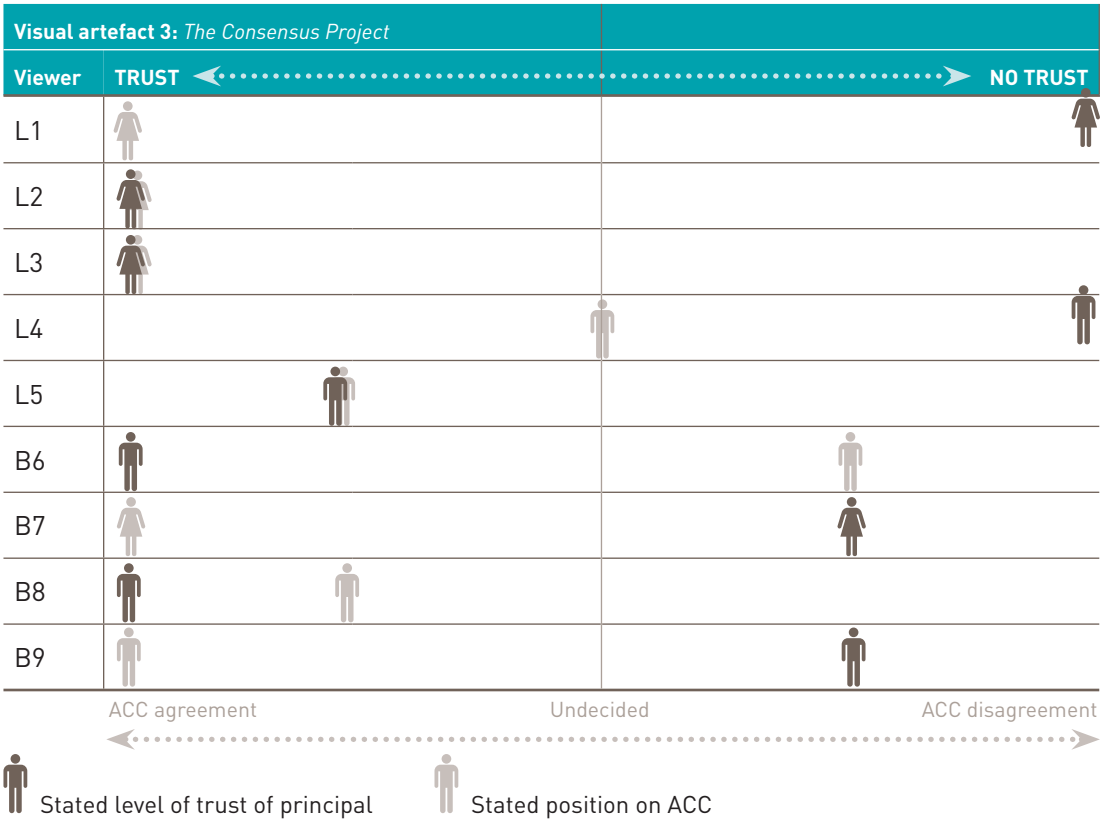



Figure 5-32. Viewers' stated position of trust of principal and/or message for visual artefact 3 compared with their stated position on ACC.

### 5.4.6 Professional coding utterances by viewers

Utterances of viewers about the visual artefacts were coded as 'hegemonic code' utterances and 'counter-hegemonic code' utterances by the viewers. Coding for 'hegemonic code' (Appendix C) was conducted to isolate utterances that, when discussing the aesthetic style of the visual artefact, referred either to political parties, named companies and corporations (such as McDonald's, Texaco or Shell—see Table 5-13), or actually referred to the aesthetic style as 'corporate', or 'corporate-y'. Utterances that referred to the style as looking like a 'source of information', of 'formal source', for example were also considered to be part of the hegemonic code.

'Counter-hegemonic code' utterances (Appendix D) included negative comparisons to corporate style or corporations (for example "I don't think it's corporate"), use of terminology like 'charity' or 'environmental group', named counter-hegemonic organisations such as 'Greenpeace', or referred to the aesthetic style as 'grassroots' or 'community'. Utterances that referred to the style as looking like it was produced by an individual person rather than a group were also considered to be part of the counter-hegemonic code. Figure 5-33 and Figure 5-34 show how many coded utterances were found for each of the visual artefacts.

Figure 5-33. Number of hegemonic code descriptor utterances by viewers for each visual artefact

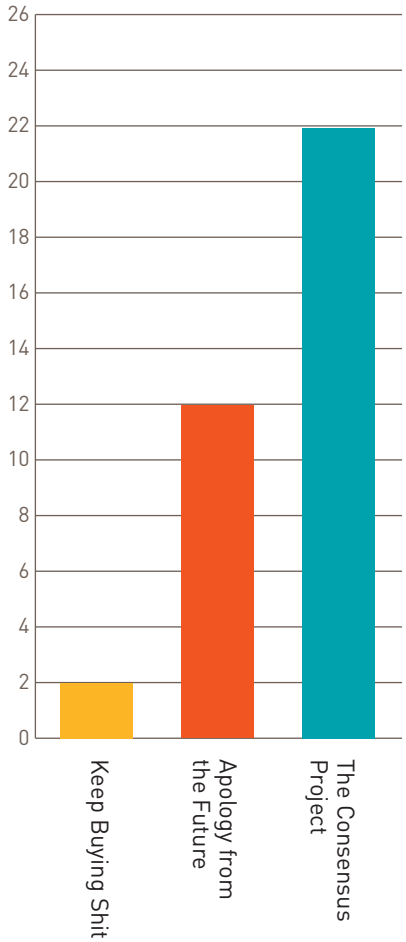



Figure 5-34. Number of counter-hegemonic code descriptor utterances by viewers for each visual artefact

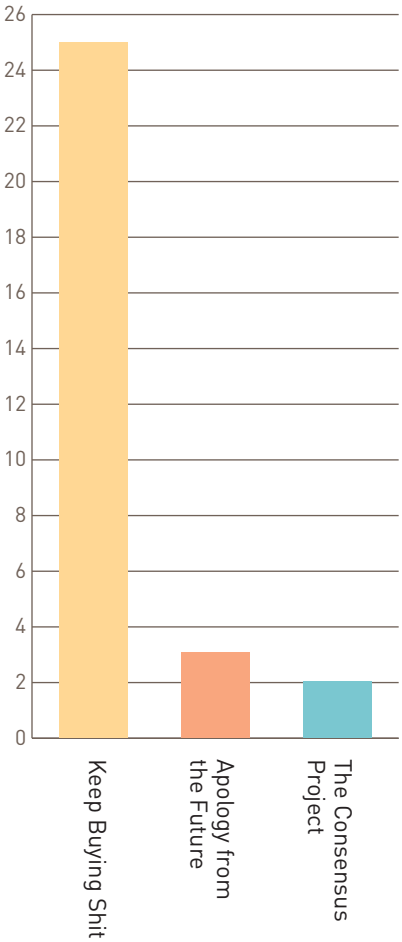


Figure 5-35 shows the number of hegemonic and counter-hegemonic utterances for each visual artefact as a proportion. From this pie graph it is clear to see that visual artefact 1: *Keep Buying Shit* has many more counter-hegemonic utterances referring to it than hegemonic. This proportion is expressed on a spectrum in Figure 5-36, which illustrates that visual artefact 1 was discussed as more counter-hegemonic than the other two visual artefacts by the 9 viewers.


Figure 5-35. Proportion of hegemonic code to counter-hegemonic code viewer utterances for each visual artefact

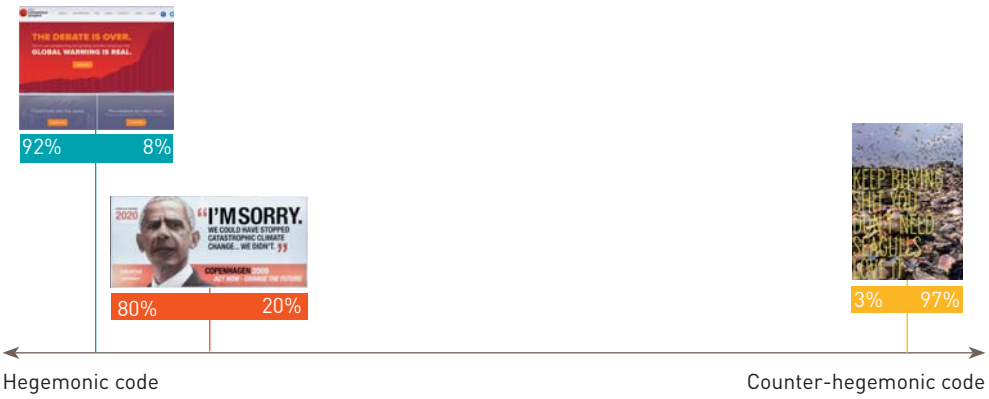



Figure 5-36. Proportion of viewer utterances for each visual artefact from Figure 5-35 expressed as a spectrum of hegemonic to counter-hegemonic code

Here, the results from previous sections were combined as a quadrant graph, where the viewers' stated trust of each visual artefact's message and/or Principal was compared with their interpretation of the artefact on a spectrum of hegemonic to counter-hegemonic. The results suggest that the viewers associated higher levels of trust with the counter-hegemonic code, and that there were more varying levels of trust with hegemonic-coded visual artefacts. Both types of coded visual artefacts had the capacity to inspire trust with the viewers.

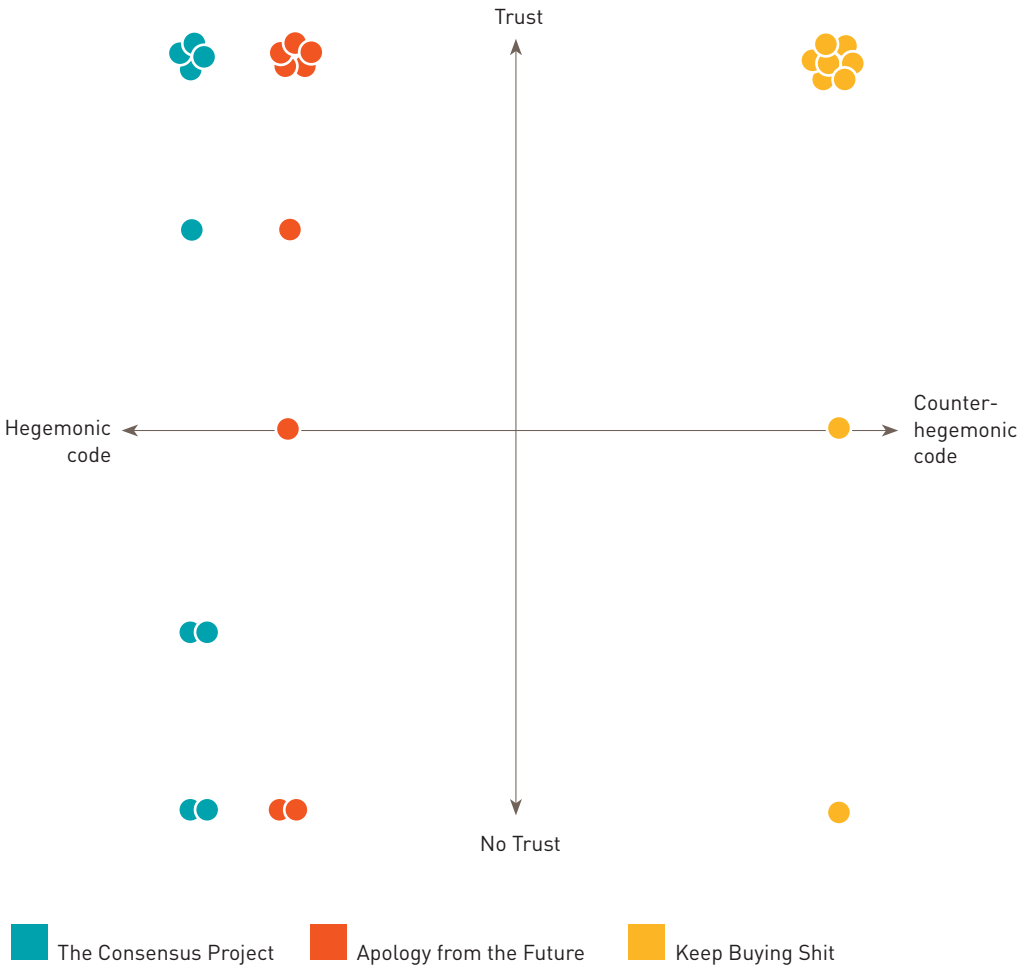



Figure 5-37. Trust of principal and message (from Figure 5-30, Figure 5-31 and Figure 5-32) expressed with the spectrum of hegemonic to counter-hegemonic code (from Figure 5-36).

### 5.4.7 Professional coding types

Utterances were further examined for specific naming of corporations, businesses, governments and institutions for what is termed the hegemonic code in Table 5-13. References to Universities and Academies were not included, as the issue of corporate influence on scientists tended to denote to which code these institutions belong. Other references that compared the visual artefact negatively to hegemonic code descriptors were included here only and are indicated as a negative reference.

Table 5-14 displays the types of entities that were described in these utterances that were classed as hegemonic, and Table 5-15 displays those entities found in utterances who were classed as counter-hegemonic. This coding provides key reference for discussion of viewer decoding in the following chapter.

Table 5-13. Hegemonic code keywords found in utterances of viewers of the visual artefacts (Appendix C). *Note: Respondents were given a Sainsbury's store gift voucher at the start of the interview which may have influenced this response.

| Visual artefact | Named corporation or institution | positive or negative reference | Type of business |
|---|---|---|---|
| **Visual artefact 1:** *Keep Buying Shit* | Vogue | + | Fashion magazine |
| | Westfield | – | Shopping centre / mall |
| | State or Federal Party | + | Political |
| **Visual artefact 2:** *Apology from the Future* | BBC, like a news story | + | News and information |
| | Opposition party | + | Political |
| | Newspaper | + | News and information |
| | Billboard | + | News and information |
| | Political campaign | + | Political |
| **Visual artefact 3:** *The Consensus Project* | Political party | + | Political |
| | McDonald's | + | Food corporation |
| | *Sainsbury's | + | Food corporation |
| | Governmental-type regulatory body | + | Government |
| | Powerpoint presentation | + | Corporate general |
| | Corporate website | + | Corporate general |
| | Texaco | + | Oil company |
| | Shell | + | Oil company |
| | Federal Government | + | Political |
| | Powerpoint | + | Corporate general |
| | The Economist | + | News and information |
| | Shell | – | Oil company |
| | Financial Times | + | News and information |

Table 5-14. Types of hegemonic code entities stated by viewers

| Types of hegemonic code entities | |
|---|---|
| News and information | Newspapers and news sites |
| | Advertising |
| | Billboards |
| Government | Regulatory and legislative bodies |
| Political | Political parties independent of government duty |
| Corporate | Food corporation |
| | Oil company |
| | Corporate general: Material generally used in corporate environment |
| Fashion & Retail | Fashion magazine |
| | Shopping centre / shopping mall |

Table 5-15. Types of counter-hegemonic code entities stated by viewers

| Types of counter-hegemonic code entities |
|---|
| Community groups |
| Charities |
| Environmental groups |
| Individuals |
| Universities |

### 5.4.8 Stated emotional responses by viewers

This section details the stated emotional responses to each visual artefact when prompted by questions such as "Does it make you feel any emotions you can describe?" (see Appendix A). These responses are shown as a table of emotional response keywords and their frequency, (Table 5-16) All viewer responses were adjusted for strength of the stated emotions, using the 5 basic or pure emotions as one end of the spectrum, opposed to stating no emotional response at the other. Pure emotions (Anger, Fear, Sadness, Happiness, Disgust) were given 2 points, other emotions 1 point, and no emotions received 0 points. Stated emotions that were prompted by the interviewer were given 0.5 point. Figure 5-38 shows the results as a pie chart, and as a spectrum graph in Figure 5-39. These figures illustrate visual artefacts 1 and 2 to have provoked significantly stronger emotions overall than visual artefact 3. Visual artefact 1 provoked the strongest emotional response, and visual artefact 3 the least. Figure 5-39 clearly shows these artefacts were at extreme ends of this spectrum, and provides key background results for further cross-comparison.

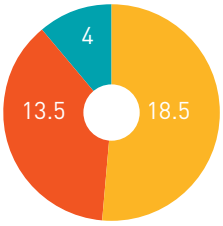



Figure 5-38. Proportion of emotional responses adjusted for strength of emotion in Table 5-16

Table 5-16. Stated emotions in response to visual artefacts as keywords / key concepts. *prompted by same word

| Visual artefact | Stated emotions | Frequency | Score |
|---|---|---|---|
| **Visual artefact 1:** *Keep Buying Shit* | Anger | 2 | 4 |
| | Frustration | 2 | 2 |
| | Amusement | 2 | 2 |
| | Irritation | 2 (1*) | 2.5 |
| | Disgust | 1 | 2 |
| | Sadness | 1 | 2 |
| | Disturbed | 1 | 1 |
| | Discomfort/Worry | 1 | 1 |
| | Annoyed | 1 | 1 |
| | Guilt | 1 | 1 |
| | | **14** | **18.5** |
| **Visual artefact 2:** *Apology from the Future* | Sadness | 3 | 6 |
| | Disappointment | 2 | 2 |
| | Annoyed | 2 | 2 |
| | Anger | 1 | 2 |
| | Irritation | 1* | 0.5 |
| | Regret | 1 | 1 |
| | | **10** | **13.5** |
| **Visual artefact 3:** *The Consensus Project* | Anger | 1 | 2 |
| | Discomfort/Worry | 1 | 1 |
| | Hope | 1 | 1 |
| | | **3** | **4** |

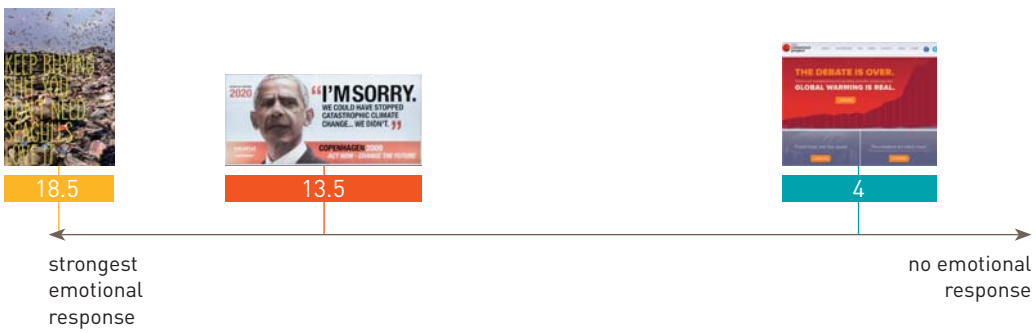



Figure 5-39. Proportion of viewer utterances for each visual artefact from Figure 5-38 expressed as a spectrum of strongest emotional response to no emotional response

### 5.4.9 Emotional responses by individual viewers for each artefact

Following from the previous emotion results (see Table 5-16), the individual utterances of viewer participants are isolated here and on the following page in a table, and then rendered on the spectrum of emotional response. These individual positions on the spectrum allowed for further cross-comparison with earlier results on stated trust of principal and /or message in a series of quadrant graphs in section 5.4.10.

Visual artefact 1: *Keep Buying Shit* provoked a strong set of emotional responses, with 4 viewers registering at the strongest end of the emotional spectrum. Only one viewer did not discuss, or expressed no emotions, while visual artefact 2: *Apology From the Future* provoked a less emotional response. In comparison, six viewers of visual artefact 3: *The Consensus*

Table 5-17. Stated emotions for each viewer in response to visual artefact1: *Keep Buying Shit* as keywords / key concepts, using scoring system from Table 5-16. *prompted by same word

| Viewer | Stated emotions | Score |
|---|---|---|
| L1 | Sadness, frustration | 3 |
| L2 | Amusement, disgust | 3 |
| L3 | Discomfort, disturbed, irritation | 3 |
| L4 | Irritation* | 0.5 |
| L5 | Anger, amusement | 3 |
| B6 | No emotion discussed | 0 |
| B7 | Anger | 2 |
| B8 | Annoyed, frustration | 2 |
| B9 | Guilt | 1 |

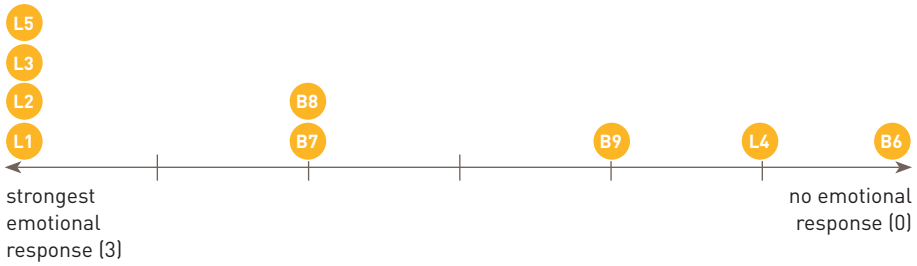



Figure 5-40. Viewer emotional response scores from Table 5-17 on a spectrum of strongest emotional response to no emotional response

*Project* reported no emotional response at all, with most viewers on the low emotion end of the spectrum. The emotional response and its importance can be further analysed in the following section, by comparing these individual results with the individual statements of trust.

Table 5-18. Stated emotions for each viewer in response to visual artefact2: *Apology from the Future* as keywords / key concepts, using scoring system from Table 5-16. *prompted by same word

| Viewer | Stated emotions | Score |
|---|---|---|
| L1 | Sadness, disappointment | 3 |
| L2 | Annoyed | 1 |
| L3 | Sadness | 2 |
| L4 | No emotion stated—anger was at how message was encoded, rather than at the message itself | 0 |
| L5 | Sadness, regret | 3 |
| B6 | Anger | 2 |
| B7 | Irritation* | 0.5 |
| B8 | Disappointed, annoyed | 2 |
| B9 | No emotion stated | 0 |

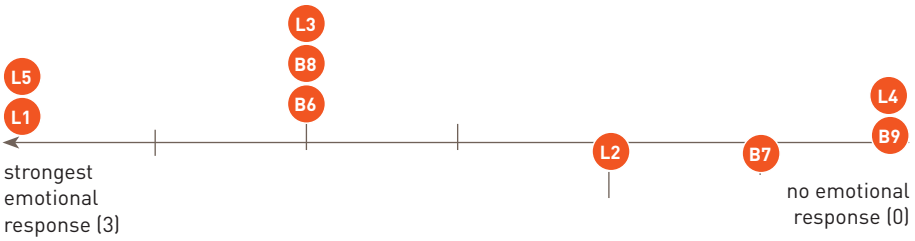



Figure 5-41. Viewer emotional response scores from Table 5-17 for visual artefact 2: *Apology from the Future* on a spectrum of strongest emotional response to no emotional response

Table 5-19. Stated emotions for each viewer in response to visual artefact 3: *The Consensus Project* as keywords / key concepts, using scoring system from Table 5-16.

| Viewer | Stated emotions | Score |
|---|---|---|
| L1 | No emotion discussed | 0 |
| L2 | No emotion discussed | 0 |
| L3 | No emotion discussed | 0 |
| L4 | Worry | 1 |
| L5 | Anger | 2 |
| B6 | No emotion discussed | 0 |
| B7 | No emotion discussed | 0 |
| B8 | No emotion discussed | 0 |
| B9 | Hope | 1 |

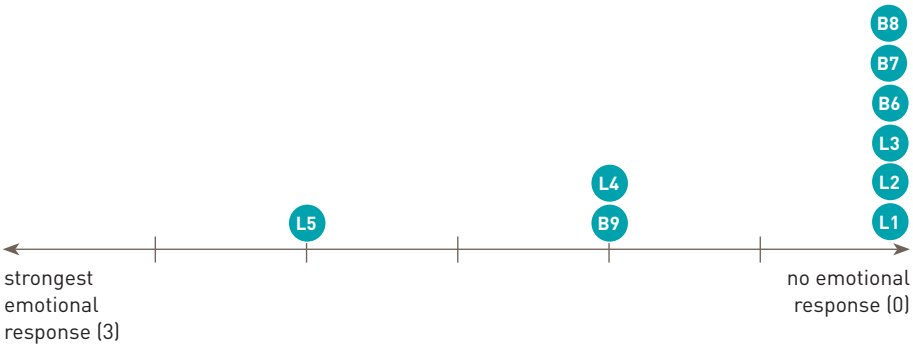



Figure 5-42. Viewer emotional response scores from Table 5-17 for visual artefact 3: *The Consensus Project* on a spectrum of strongest emotional response to no emotional response

### 5.4.10 Comparison of stated emotions and stated trust

Stated emotional results from the previous section were compared using quadrant graphs with the respondents' stated position of trust of principal and/or message in each visual artefact.

Clear differences were found between the three artefacts, with visual artefact 1: *Keep Buying Shit* invoking a higher level emotional response, and a higher level of trust than the other two artefacts (Figure 5-43). The highest concentration is found in the "trust and strong emotions" quadrant, and no viewers were found in the quadrant that indicated a lack of emotional response and a lack of trust. In contrast, visual artefact 3: *The Consensus Project* returned only one viewer in the "trust and strong emotions quadrant", inhabiting a less extreme position within that quadrant (Figure 5-45). The remaining viewer respondents were located in the lack of emotional response side of the diagram, with a much lower level of trust. Four respondents who did indicate high levels of trust also did not indicate an emotional response, which may signal that for a values-based appeal, emotional responses are not required for trust. Visual artefact 2: *Apology From the Future* returned a more even spread of results, although responses were mostly at the extreme ends of the spectrum (Figure 5-44), indicating that visual artefacts 1 and 2 provoked more certain, or firm opinions in the respondents than visual artefact 3.

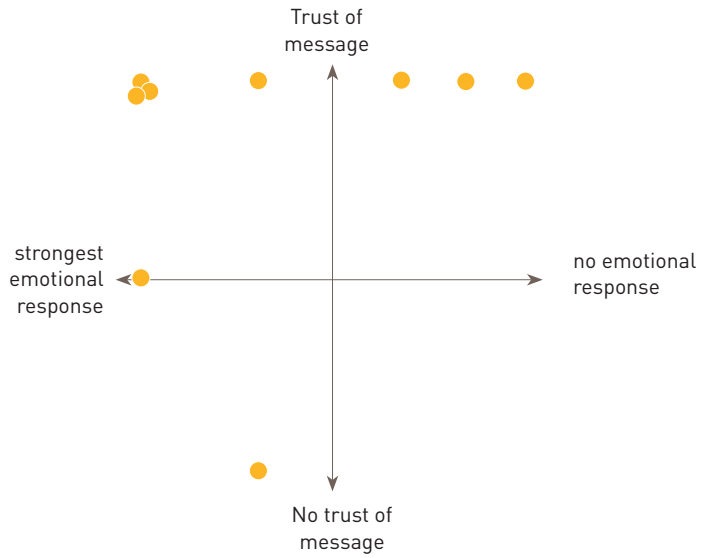



Figure 5-43. Trust of principal and message (from Figure 5-30) expressed with the spectrum of strongest emotional response to no emotional response for visual artefact1: *Keep Buying Shit*

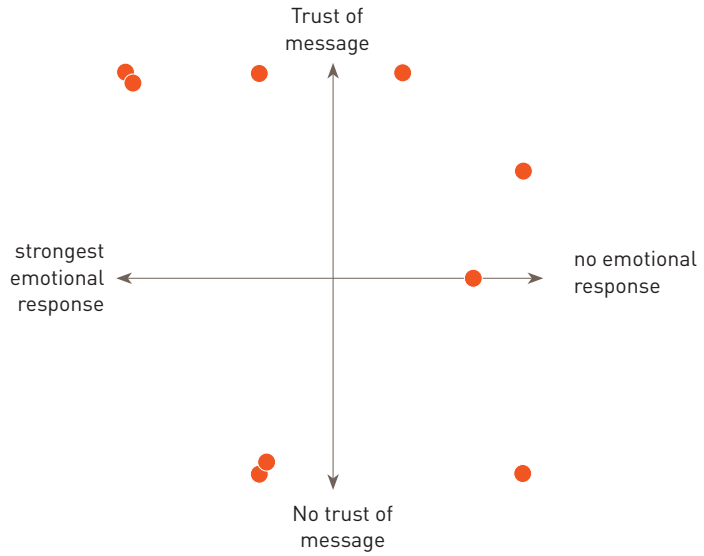



Figure 5-44. Trust of principal and message (Figure 5-31) expressed with the spectrum of strongest emotional response to no emotional response for visual artefact 2: *Apology from the Future*

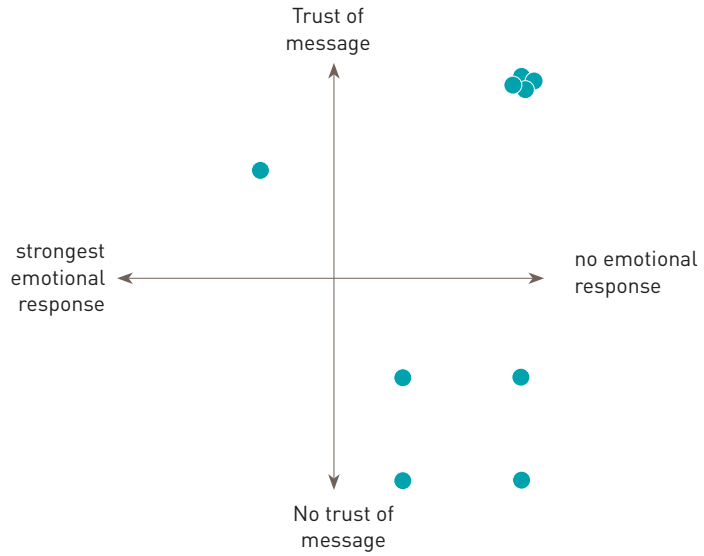



Figure 5-45. Trust of principal and message (from Figure 5-32) expressed with the spectrum of strongest emotional response to no emotional response for visual artefact 3: *The Consensus Project*

### 5.4.11 Stated trust of scientists

The responses to the question of whether or not the viewers "trust scientists" (see Appendix G) are rendered here on a spectrum from "trust" to "no trust" and compared with the viewers' stated positions on ACC (light grey icons) using results from Figure 4-19. The question of trust of scientists was posed to investigate Leviston and Walker's finding that Australians view University scientists as among the most trusted information sources on climate change, but that industry scientists ranked the lowest, and government scientists between the two (Leviston et al. 2014). While most utterances related to the corporate influence on scientists, plotting where respondents sat on this scale, and with that quality in mind, is useful for comparative purposes. This question followed the discussion about the first selected visual artefact, where a question relating to trust of the message had already been asked. It should be noted here that L2 was awarded a degree in the field of Science—unlike any of the other viewers—which is likely to have influenced her response to this question.

Some viewers, for example L1, held a position of agreement with ACC, but was in the middle of the spectrum of trust of scientists. B6 also had a varying response to the two positions, indicating a potential area of concern for communication of scientific messages.

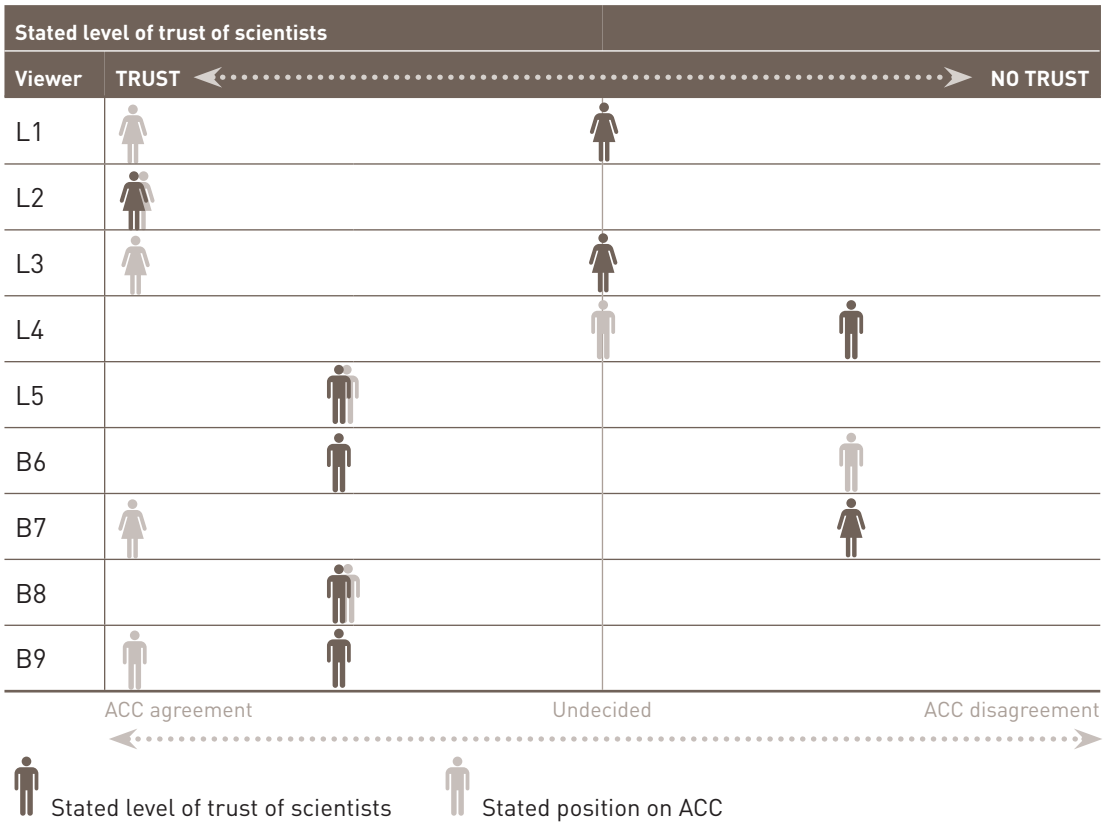



Figure 5-46. Viewers stated position of trust of scientists and message for visual artefact 1 with stated ACC position from Figure 4-19 indicated as shaded icons.

## 5.4.12 Trust of principal and/or message and trust of scientists

This section compares results surrounding the trust of scientists (Figure 5-46) in light green, and the trust of the principal or messages relating to each of the visual artefacts (dark grey).

Comparison may reveal differences in trust of ACC messages, and position of viewers on ACC messages (Section 5.4.5) that warrant further investigation. Figure 5-47 shows that L1 stated the same level of trust in message as she does with scientists, which is in the middle of the spectrum.

Her position on  ACC, however, is full agreement, on the right side of the spectrum.

In Figure 5-49, she did not trust the scientific message, and her perception of scientists more closely matches this outcome, a different result to the extreme ends of the spectrum that she occupied in Figure 5-32. It is suggested that, for some of the viewers, perception of some types of scientist may interfere with the reception of scientific messages.

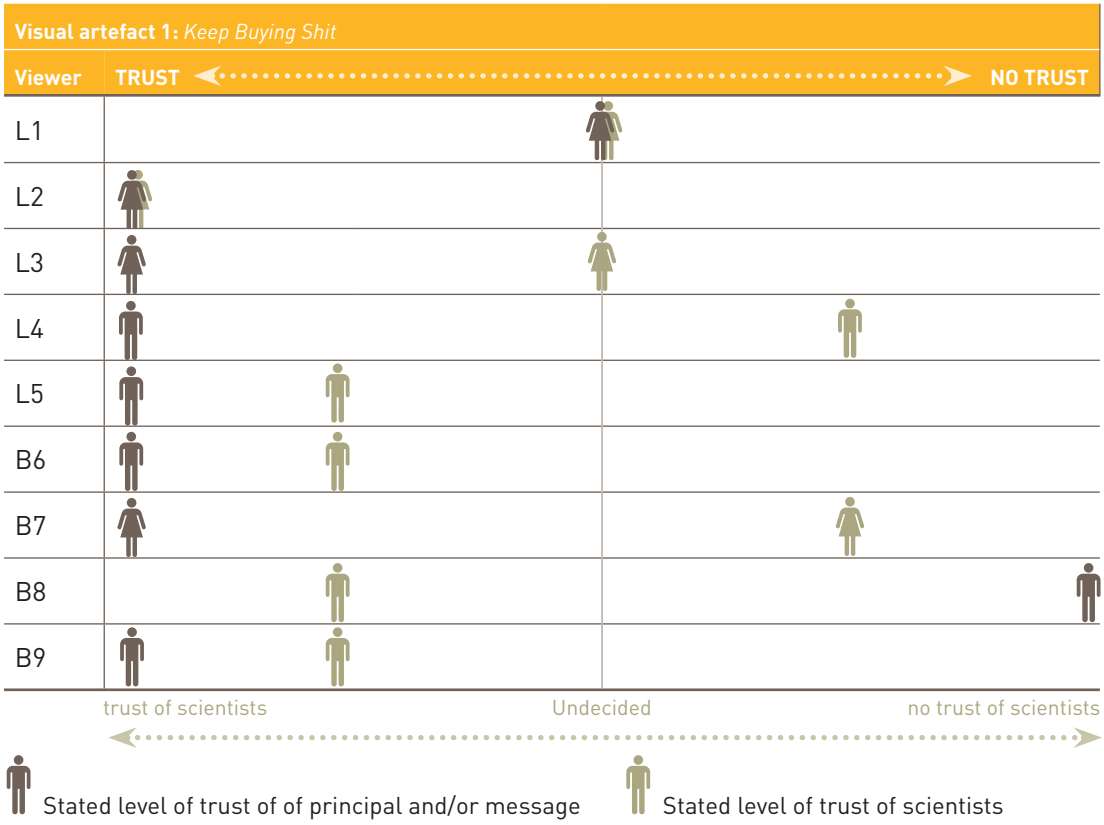



Figure 5-47. Viewers stated position of trust of decoded Principal and message for visual artefact 1 with stated trust of scientists from Figure 5-46.

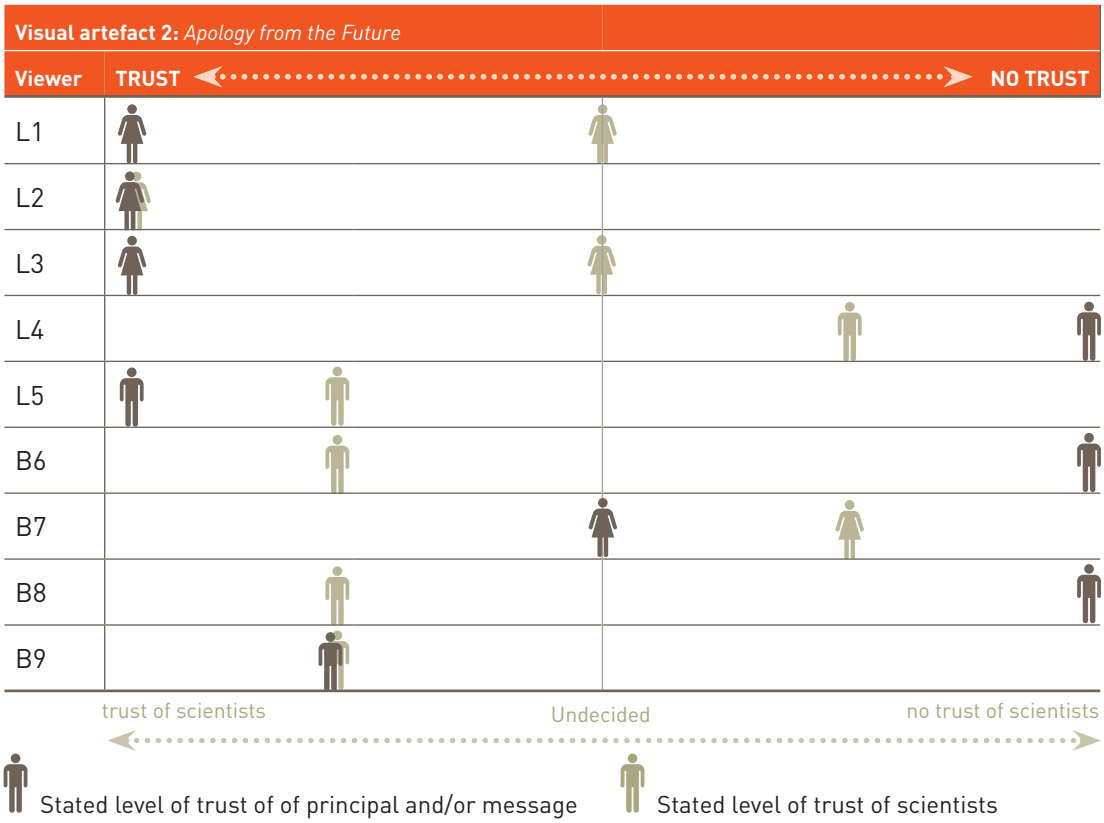



Figure 5-48. Viewers stated position of trust of decoded Principal and message for visual artefact 2 with stated trust of scientists from Figure 5-46.

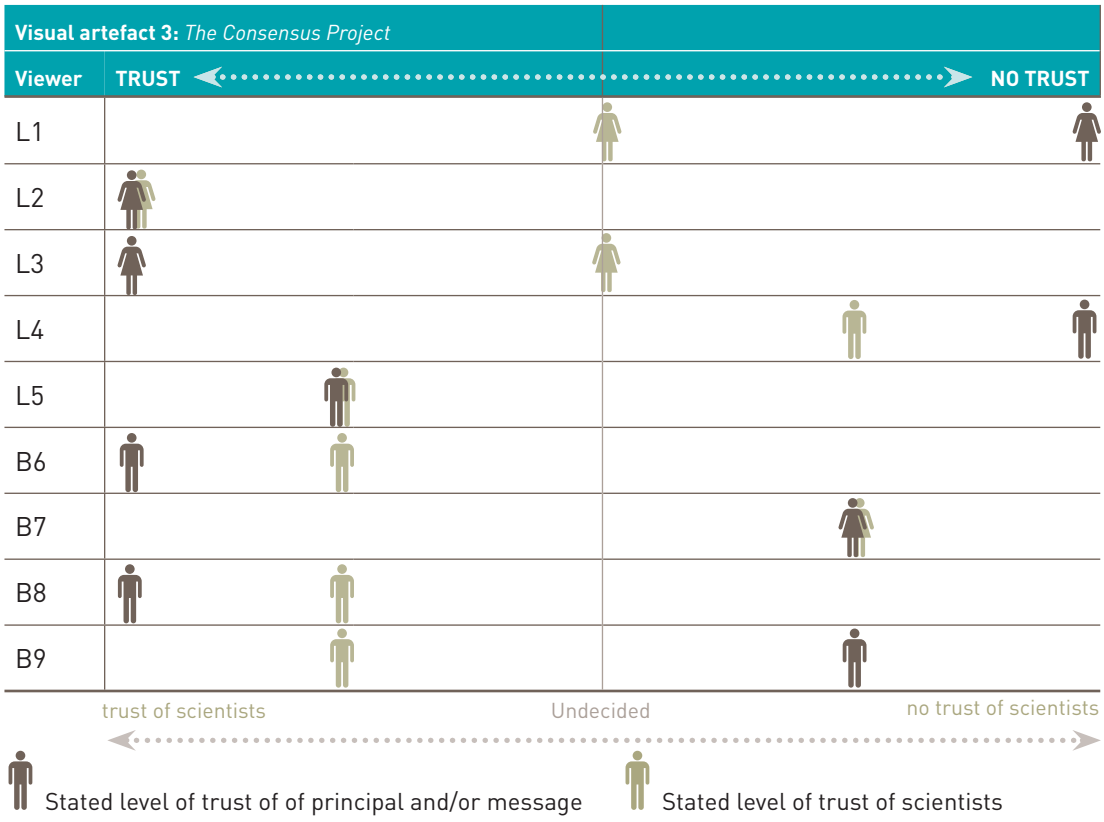



Figure 5-49. Viewers stated position of trust of decoded Principal and message for visual artefact 3 with stated trust of scientists from Figure 5-46.

### 5.4.13 Telos of visual artefacts

Viewers were posed two questions intended to gauge the viewer interpretation of telos—the end result that is viewed through a time-based lens for discerning tragic or comic types of apocalyptic rhetoric. This is applied where a closed, hopeless and defined end is a signifier for tragic apocalyptic rhetoric, and a more hopeful, open or variable ending signifies a comic apocalyptic rhetoric (Foust and Murphy 2009). Viewers were asked what the artefact under discussion made them feel, on a spectrum of hope to resignation. They were also asked whether the artefact helped them feel they might make a difference (Appendix J).

The first response was overlayed with the response to the question of whether the artefact helped the viewer feel they might make a difference. On several occasions (for example viewer L4 for visual artefact 2, or B8 for visual artefact 3) the response was insufficient to gauge a spectrum result, or the question was not asked, and therefore no results are shown. Expected results were that feelings of hope would accompany the feeling of being able to make a difference, however actual results showed that only the resignation end of the spectrum had any correlation to the feeling of being able to make a difference (4 out of 23 instances), and little correlation between the two at all.

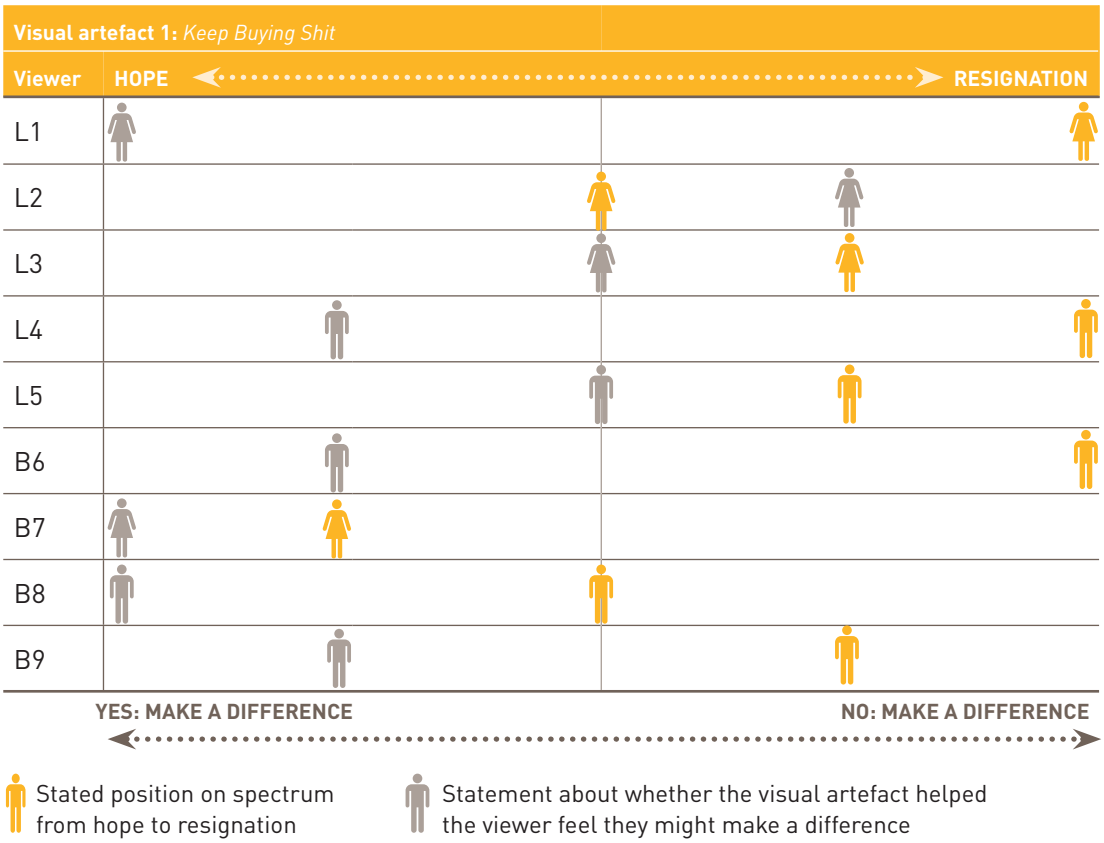



Figure 5-50. Viewers perception of Telos for visual artefact 1 from "Appendix J Responses to questions regarding telos of visual artefacts".

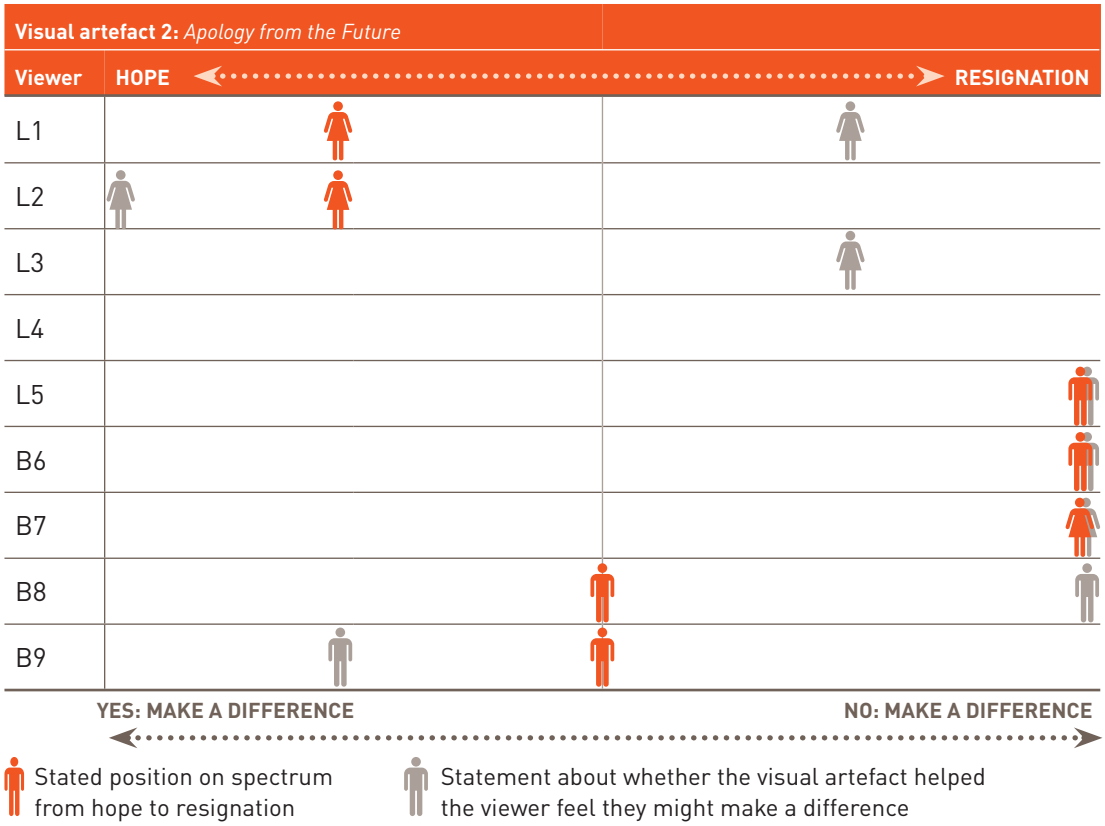



Figure 5-51. Viewers perception of Telos for visual artefact 2 from "Appendix J Responses to questions regarding telos of visual artefacts".

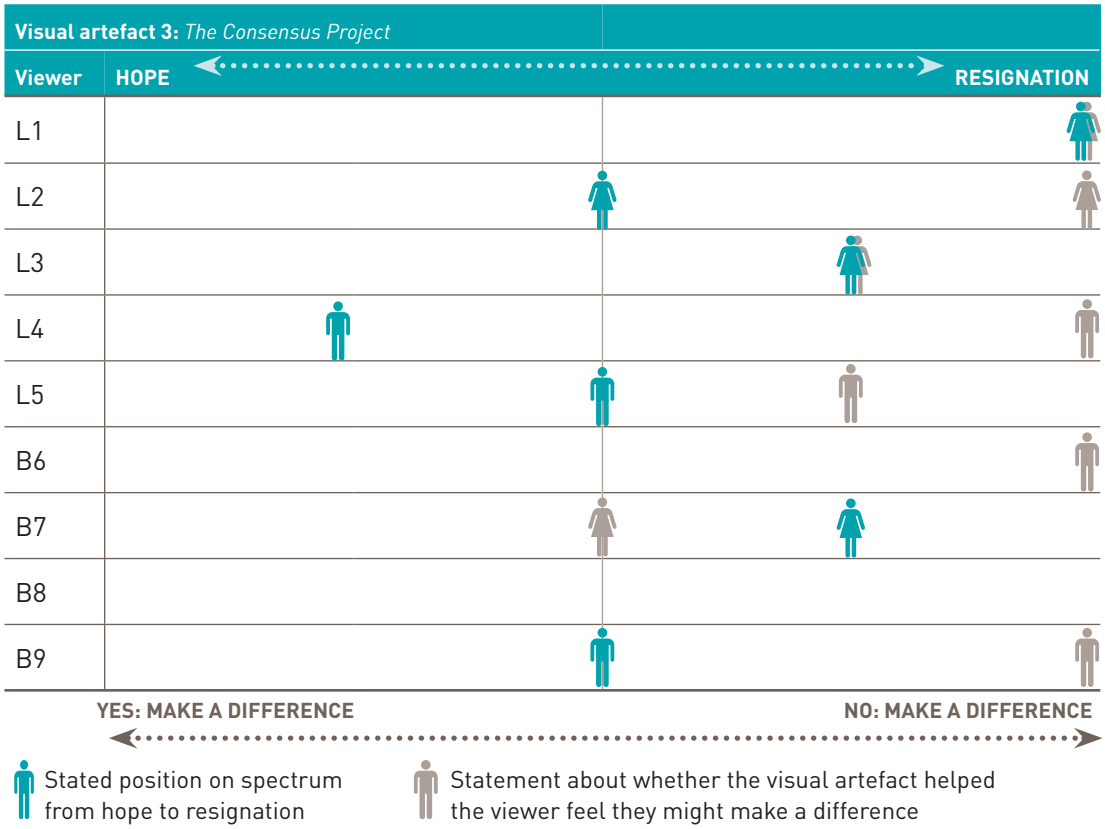



Figure 5-52. Viewers perception of Telos for visual artefact 3 from "Appendix J Responses to questions regarding telos of visual artefacts".

Figure 5-53 summarises the spread between the two feelings for viewers who returned a result in Figure 5-50, Figure 5-51 and Figure 5-52. Instances where there was no difference—and therefore no visible spread between the two stated conditions—are highlighted at the bottom of the table in grey. Visual artefact 1 in particular invoked a higher difference between a lack of hope, and a feeling of the ability to make a difference. The striking visible spreads in these results, a larger than expected spread between the two conditions, is further discussed in the next chapter.

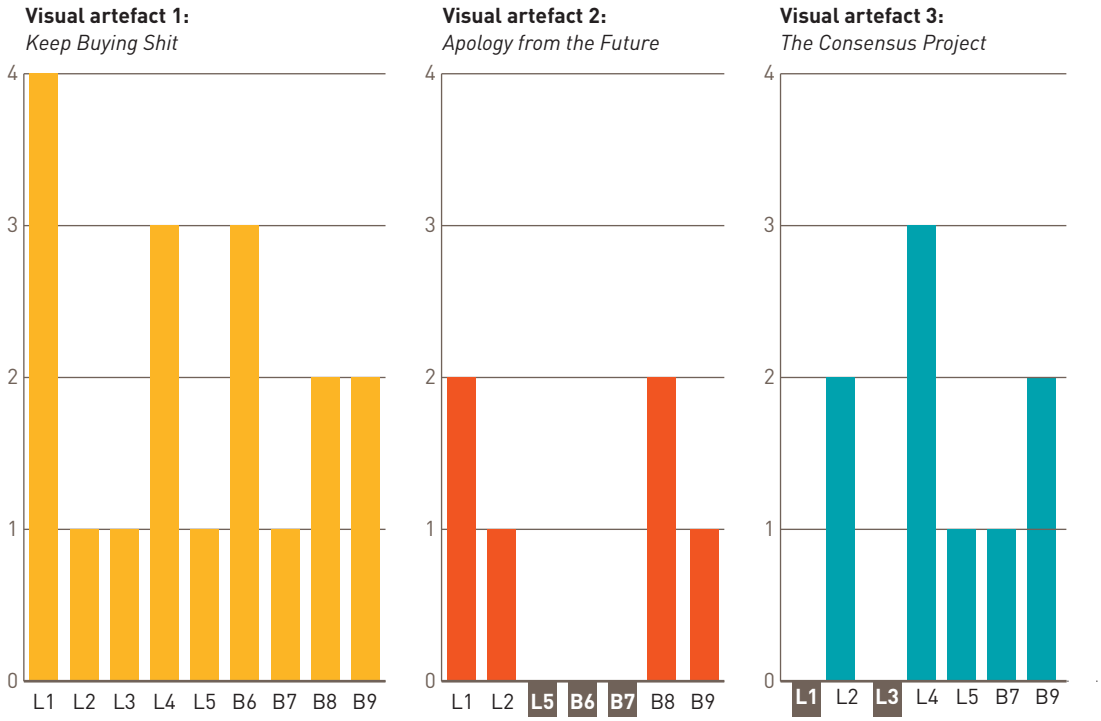



Figure 5-53. Difference between stated feelings of hope or resignation, and statements about being able to make a difference triggered by visual artefacts 1, 2 and 3. No difference highlighted in grey.

## 5.5 Conclusion of chapter

Major findings outlined in this chapter were :

» Emergence of a new typology of signifiers in visual artefacts, and a new way of isolating these signifiers in whole visual artefacts.

» A new description of the graphic design process using two key types of experience, or "states" as building blocks: creative states and judgement states. These two states can work together in a variety of combinations.

» Initial aesthetic preference for visual artefacts was isolated for further discussion.

» The producer encoding of visual artefacts was different to each of the viewer decodings. The actual order of how the elements were viewed was represented visually using the new typology and signifier isolation method.

» The exact point of conversion, where viewers engage more deeply with the artefact was pinpointed and represented visually. Similarities emerged when all viewer experiences were compared, for example the photographic representations of object (the photographs of famous world leaders), or the primary message for visual artefact 1: *Keep Buying Shit*, which was a written emotional claim.

» A viewer's position of agreement with ACC did not necessarily mean that the viewer trusted the ACC message being delivered by an aesthetically-styled visual artefact. In some cases, the viewers' trust of message was more closely aligned with their trust of scientists, depending on their perception of the principal for whom these scientists work.

» How viewers experienced the visual artefacts, as hegemonic at one end of the spectrum, to counter-hegemonic at the other, allowed for the visual artefacts to be classified according to these experiences. Artefacts coded as more hegemonic were less trusted, but there was still a clear level of trust for both kinds of coded visual artefact.

» Visual artefact 3: *The Consensus Project* induced a far weaker emotional response than visual artefact 1: *Keep Buying Shit.* When compared with results of trust, the highest concentration was found in the high trust and "strong emotions" quadrant, which was not the case for visual artefact 3.

» Viewers in some cases stated a lack of hope in response to a visual artefact, but also stated that they felt they could "make a difference". This was an unexpected result, and the large spreads of different types of emotion held simultaneously by viewers in relation to the potential outcomes of ACC may indicate a more robust emotional capability than much of the literature suggests.

These results are discussed in greater depth and context using narrative analysis and case study methodology in the following chapter, *Chapter 6: Discussion*.

# Chapter 6: Discussion

## 6.1 Introduction

The previous chapter outlined the results of analysis of the three sites of enquiry in the cultural study: the site of the visual artefact, the site of production of the visual artefact, and the site of reception of the visual artefact. The first research question, which examined the types of approaches evident in visual communications of ACC, provides a key background to the relationships between the visual artefact and the human actors in the study. To address the remaining two research questions, investigating the sites of production and reception, this chapter moves to discussion of the influences and contributions of the intrinsic perspective of habitus, and then to the more extrinsic aesthetic style to understanding the production and reception of ACC visual artefacts. This discussion is conducted firstly in relation to the site of production in defined parts, then in a combined approach to reception.

All visual artefacts, and the aesthetic styles which translate the messages they are attempting to communicate, are produced and viewed by human actors who each have their own set of beliefs, understandings and dispositions, known as habitus (Bourdieu 1984). A logical progression for discussion is to commence with the contribution and influence of habitus on production and reception of these visual artefacts. Firstly, a brief recap of theory surrounding habitus is provided as a frame for the remainder of the section. The section then investigates the production and encoding of the ACC visual artefacts, with a deeper investigation into design process outlined in the results, revealing the influence of habitus at the key stages of idea generation and production. This is key for the profession of graphic design, as most design field process studies focus on production of three dimensional objects rather than more specific graphic design aims of production of emotion and meaning-making visual artefacts. The section then moves to the more extrinsic influence of visual artefact aesthetic style, about which there is little empirical evidence in the graphic design or sociological fields.

Reinstating equality between the message (text) and the visual style used to communicate it allows for a better understanding of the viewer experience, in particular in generating systems of principles by which viewers judge the visual artefacts. How these artefacts are decoded by viewers follows, moving from how the viewers read the signs in the visual artefacts, to how they make meanings from their readings. The discussion then turns to factors influencing these decodings: image types, rhetorical framing types and the systems of principles that generate professional coding. This section combines the influences of habitus and aesthetic style, both of which have a direct influence on viewer reception of ACC messages.

Using case study methodology as outlined by Hamel, Dufour and Fortin (1993), this chapter investigates the communication phenomena found in the results using the procedure of "describe, understand, explain". Understanding is demonstrated and translated by description, and explanation draws what has been described into the light of sociological enquiry for deeper analysis. As well, Csikzentmihalyi's (1996) methodology with smaller sample sizes is to find material to cast new light on existing theory, a process upon which many of these results and interpretations are built.

## 6.2 The influence of habitus on graphic design production

Habitus—a Bourdieusian term for an individual's set of dispositions and understandings, through which they experience phenomena—is a useful lens through which to examine the data from a phenomenological, "individual experience" perspective. Discussed in the methodology section, this perspective offers two key insights into the results of the study. Firstly, a habitus-based analysis of graphic design process makes a valuable contribution to discussion of how graphic designers create visual rhetoric. In particular, this type of enquiry provides evidence for current discussion dividing the field of graphic design on the relevance of sociological theory in the teaching and practice of graphic design. Secondly, the individual viewing experience can be examined, particularly in light of the changing human psyche, a result of the hyperreal digital age (as introduced on pages 17-20, and discussed further on page 138) in which the complex, abstract problem of ACC exists. Systems of principles by which the viewers made their judgements of the visual artefacts can be extracted, offering insight to those engaged in the communication of ACC as well as those focused on advancing sociological knowledge.

The influence of habitus in production and reception of visual information is to determine which signifiers have prominence over others in the reading process. While referring specifically to the graphic design practice of branding, Tonkinwise describes with clarity how the translation of messages using aesthetic styles relates to Bourdieu's idea of habitus:

> *"Conventional branding attempts to use the homologies of taste regimes to associate products and environments with the same levels of cultural and social capital."* (Tonkinwise 2011b, 8)

In other words, designers use the language of aesthetic style to associate these messages to their audiences. An analysis of how this practice occurs can reveal much about how theory from the social sciences can contribute to the field of graphic design, and in turn demonstrates how important graphic design's aesthetic style focus, and the more abductive ways of solving problems, can contribute to sociological understandings.

Many studies describe the need for a cultural approach to ACC visual communication analysis, with the site of production needing focus (Hansen 2011; Linder 2006; Molotch 2003).

As Malkewitz, Wright and Friestad (2003) found, graphic design literature predominantly focuses on non-academic production techniques, which offer little insight here. One of the key approaches to this study was to move beyond existing studies of the types of communication and how they are to be framed, and question how the visual translations of these theories are created by designers and received by audiences. Much of the literature stems from the top-down hierarchy within the communications professions, from studies based on the underpinning theories behind communication (Hulme 2010, 2008; Molotch 2003), to studies that produce as experts the chief executives of the companies and organisations that produce ACC visual artefacts (Regniez and Custead 2011, Lester and Cottle 2009). No studies investigate those producers working at the output end of the professional communication spectrum: the graphic designers translating these messages into aesthetically-styled visual artefacts, using their own sets of principles and dispositions to appeal to an assumed target audience.

Key to these understandings is a new model for the domain of graphic design (Harland 2011) that places idea generation at the centre of practice, rather than traditional models which focused on techniques and the visual elements of photography, illustration, typography and print. This phenomenological perspective affords opportunity to examine by which processes and understandings the producers created the ACC visual artefacts, and is supported by the graphic design process logic map which resulted from the investigation into graphic designers in this study (Figure 5-16).

The graphic design process model (Figure 5-16) proposes two types of process state: creative states and judgement states. These two types of state have a binary relationship, where the progressive creative state is retarded by the creativity-quelling judgement state. The judgement state forms an important part of the creative process, by defining at which point creative practice is complete. Interestingly, the creative and judgement states in the new model are influenced by habitus. Nelson and Stolterman (2003, 24) describe judgement as *"...dependent on the accumulation of experienced consequences of choices made in complex situations."* As the results showed, habitus is also a key factor in both conscious practice and flow types of creative state.

The binary relationship exposed in this examination of the design process is a valuable contribution to design process discussion. Understanding that termination of creativity through timely judgement is as important to the design process as idea-generating creativity itself allows for a deeper understanding of the practice of graphic design. This in turn leads to a better acceptance of the different influences of designer habitus which guides both creative and anti-creative states.

The importance of the binary, opposite relationships of the creative and anti-creative states in graphic design is demonstrated by comparing the different processes followed by Diego—a design student at the time—with Matt and Toby, graphic designers with more

than 15 years' experience each. Both Matt and Toby made experienced judgements about when to stop creating, indicating that the visual concept was complete. This follows Nelson and Stolterman's (2003) explanation of how judgement skills are developed and applied. In contrast, Diego required the feedback of a more experienced designer to judge that his creative state was complete. Diego described what he was intending to do with his concepts, a very different outcome to the visual artefact he ended up producing, which was subsequently published in company with visual artefacts produced by some of the world's most prominent graphic designers.

This binary relationship between creativity and actors regarded as anti-creativity also opens discussion in the wider graphic design-related fields, such as graphic design education. Soar (2002) summarises the opinions of several prominent graphic designers involved in practice and education that allied academic theory found in the social sciences (for example, semiotics) can interfere with the creative education of design students. Approaching this discussion through the lens of habitus instead allows for an understanding of how anti-creative agents can instead be a positive influence in aiding inexperienced designers to move on at more appropriate points in their creative process. The sorts of academic skills designers can gain through studies of theory include critical thinking, which can be described as reasoned judgement (Beyer 1995). In other words, academic theory can contribute to the habitus of designers (especially less-experienced designers) in effective judgement as part of the graphic design process. Viewing the development of designer skills as a binary relationship between encouraging creativity, and encouraging judgement and critical thinking aids both the education and practice of graphic design.

As we have seen, habitus has a direct impact on all states that combine to form graphic design process, both the creative states, and the judgement states. In fact, all members of the study were influenced by their own habitus to make judgements on the visual artefacts:

- The researcher, from a producer perspective and academic research perspective, in determining attributes of visual artefacts from theoretical selection through to analysis and discussion
- The producers, in creating visual representations of ACC messages intended to align the message with the habitus of audiences
- The viewers, in responding to semi-structured interview questions during primary and secondary exposures to the visual artefacts.

Reflexive analysis of the researcher's decisions during theoretical selection, as mentioned in point one, is undertaken in the next section and then theory is aligned with viewer responses in point three. Discussion now turns to aesthetic styles the producers used as a translating language (encoding) with the intention of aligning the message with the audience habitus. Viewer responses to these encodings follow this section.

## 6.3 Aesthetic style: the language of graphic design

As well as habitus, Bourdieu also problematises the visual in terms of its aesthetic style, discussing the concept that the language of signs has the potential for communication that exceeds the intended communication of message (Loesberg 1993; Folkmann 2009). The aesthetic style can communicate power, for example, or the position of the message author within the structures of hegemony. Bourdieu's (1992) concept of 'systems of principles', or how and by what conditions viewers co-construct the experience of the visual during reception provides a methodological tool for investigation of this aesthetic style communication between designer and viewer

Some scholarly thought shuns the aesthetic language of graphic design as "mere styling" (eg. Papanek 1995), and/or proposes a move into a more rhetorical or text-based domain (Frascara 1988). Combining this with the aesthetic side of rhetoric, however, as pointed out by Bartmanski (2015) offers a more complete sociological understanding of the relationships between visual artefacts and human agents. Others, such as well-known graphic designer Paula Scher (in Soar 2002) prefer a more creative, aesthetic-only approach to practice. Tonkinwise instead supports the investigation through aesthetic style as an area in urgent need of study, and as an opportunity to broaden knowledge on the relationship between designers, visual artefacts, and their intended audiences.

### Encoding message through aesthetic style

Graphic designers are translators of messages into rhetorical visual artefacts. The 'encoding' of these visual messages, using signifiers within an aesthetic style is how designers aim to deliver arguments to viewers with preferred readings (Buchanan 1992). This section will discuss the messages and their assumed audiences for which the producers of the three visual artefacts based their solutions (Appendix H).

The producer of visual artefact 1: *Keep Buying Shit* (Diego) described the aesthetic style he used as "raw", and intended for the image to be shocking and provoke thought in an audience he limited to "everyone":

> "*Raw. To address an issue, you have to be upfront about it. I think adding anything to it would take away. It's the economy of the design itself. Straight to the essence. It's such a big problem, there's no time to redesign it. We need to get this out there. And I'd like to think that comes off somehow, like maybe unconsciously. Like a stop sign is a stop sign. There's no frilly things and little lights and bows and blings.*
>
> *It's a slap in the face. Anybody. I would hope if you're a normal, quote unquote, human, it would stop you and make you think. That's why the message has to be quick*." —Diego, producer of visual artefact 1: *Keep Buying Shit*

Diego classed his poster as being shocking, aligning with the researcher's assumption that this can be an ideal case of tragic apocalyptic rhetoric. The telos of the artefact was not clearly stated in terms of the open or closed ending of the story being told, however discussion did indicate that Diego intended audience members to not only think, but to act and change their behaviour, which may point to a more values-based appeal.

Toby, producer of visual artefact 2: *Apology from the Future* interpreted the term "style" as referring more to fashion and trends than to a description of visual translation. The primary target audience was journalists arriving at the Copenhagen airport for the conference to which the artefact refers, and through them, the world leaders were targeted. The secondary target audience was everyone else, consumers of western media. The artefact had high exposure, and some of the viewers mentioned having seen it before.

> *"Well for me on this project it was all about climate change, it's all about the future. So trying to put the message across to journalists or whoever to make them think twice was behind the thinking before we got to this point. So the question was how do we make people think about the future in a completely different way that they haven't done before? I mean it will be easy to show the Statue of Liberty half under water I think but not true because it would only be like a metre higher or whatever or two. And the other thing behind it was to not over-dramatise but just picture a situation in the future where people would just think "Oh" and twist their thinking slightly. So I wanted to give journalists that opportunity as well to just have a little glimpse, it's like a little peek into the future and what one future could be."* —Toby, producer of visual artefact 2: *Apology from the Future*

Toby's comparison to apocalyptic imagery as exemplified by the idea of an iconic structure, the Statue of Liberty, as being affected by ACC related flooding seems to indicate that he was not attempting an apocalyptic style of rhetoric. The use of the word "catastrophic" in the primary message (Figure 5-6.2) does align with comic apocalyptic theory (Foust and Murphy 2009). The telos indicated by his discussion also reflected the comic apocalyptic attribute of an open-ended, hopeful, which was reinforced by the secondary message (Figure 5-6.3) which reads "Act now – change the future".

The producer of visual artefact 3: *The Consensus Project*, Matt, described the target audience as "people who were confused or not knowledgeable about global warming." To address this audience, Matt looked to keep the aesthetic style as simple and easy to read as possible.

> *"We needed to make it as quick a read and as simple as possible. That kind of informed the overall visual style, so we purposefully kept things as simple as possible. Partially. I mean, it also needed to work well in social media, so things needed to shrink down and there was a lot of information. Beyond that, I think*

> *lots of the infographics we'd been doing internally were 2D anyway so that's kind of – I mean, we don't have a studio style, but that's usually what we do with things anyway."*—Matt, producer of visual artefact 3: *The Consensus Project*

Matt discussed the use of colour as a way of conveying alarm, but provided means of solution with the secondary message which reads "The solutions are within reach" (Figure 5-9.4). The combination of these elements could infer a more comic apocalyptic rhetorical grouping. Matt's intention was for the key message, that of the 97% consensus (figure 5-11.3), to be read and understood, which indicates this artefact aligned with values-based rhetoric, or deep framing:

> *"And we wanted somebody to, at a glimpse, to just understand the 97 per cent as simply as possible."*—Matt, producer of visual artefact 3: *The Consensus Project*

All three visual artefacts, selected as ideal cases of the three types of visual rhetoric, were described by their producers as fitting within their assigned visual rhetorical type. Each producer also described intentions that matched attributes of other types of rhetorical framing, and the viewer perceptions of where these artefacts sit will be discussed in the next section, which addresses how these encoded visual artefacts were received by the viewers in the study.

Each designer worked as translator to several audiences. As well as the intended target audience and decisions and choices made to communicate visually, other audiences that influenced the design process were the clients for each of the three designers. The clients were discussed as influencing design process as part of the judgement stage, and form an important member of the binary creative/judgement state in graphic design process.

For the site of production, both habitus and aesthetic style have been shown to be a key lens through which to examine the producers' explanations of their creative process. Understanding the dualistic nature of the creative and judgement states within graphic design process reveals the importance of both creativity and factors which retard creativity. Habitus also forms the base from which the visual language of graphic design is deployed, with reasons for aesthetic decisions following Tonkinwise's proposition that designers attempt to align aesthetic styles with viewer tastes and dispositions. In order to investigate how these attempts did align, discussion moves to the site of viewer reception of the three visual artefacts.

## 6.4 Influence of habitus and aesthetic style on viewer reception of visual artefacts

### 6.4.1 A changing habitus

A review of the literature exposed the influence of the digital technology age on the human psyche (Keegan 2012; Turkle 2012; Brannigan 2011; Greenfield 2008; Lindstrom 2008). Our attachment to manufactured visual communications, social media, and other digital realms, and our gradual decay in empathy (Turkle 2012; Konrath, O'Brien and Tsing 2011) has affected our relationship with the natural ecosystem in which we live. Baudrillard termed this "hyperreality", and Assadourian found evidence of this disassociation in a study with British children (2010). This is key to the rhetorical visual communication of ACC, as this current, hyperreal society is the only group of humans capable of influencing the impact of ACC on future generations. Studies to date have not considered this change in psyche, in particular when advocating for emotional appeals in a mediated visual environment already saturated with constructed meaning and emotion-invoking imagery.

A 2014 project by Morris and Sayler entitled *A History of the Future* investigated the mediated, visual experience of ACC. Interestingly, in the process of producing rhetorical photographic images of landscapes that might evoke emotions in respondents on the topic of ACC, they followed a process based on a habitus-guided creative state/judgement binary, rather than attempting to document from a theoretical or scientific documentation perspective. While varying display of the images provided ground for compelling theoretical discussion, reception by viewers was not measured. Further discussion around the truth of photographic images such as these can be found later in this chapter under the heading *Seeing is believing.*

Results from the reception of the three visual artefacts in this study focused on the individual experience in order to avoid assumptions based on theory formulated before the commencement of this digital age. Instead, new theory is developed from dual perspectives of habitus, and the influence of aesthetic style on habitus. This section commences firstly with discussion of how viewers are "reading" the visual artefacts with reference to existing theory on reading process, and secondly what meanings they make from these readings. Discussion then turns to factors that may influence the making of these meanings, such as types of imagery and rhetorical framing, and the systems of principles created by the viewers that code these visual artefacts with the hegemonic power system.

### 6.4.2 How viewers read the signs in visual artefacts

This section will discuss inferences made from viewer preference and discussion, and how these results align with existing theory on the way viewers read signs. How meaning is made from these signs is then discussed in the following sections. Initial discussion centres around the primary exposure to the artefacts (Figure 4-20) and effect of the aesthetic

style on the preferences of viewers. The secondary exposures from these preferences are then examined, in terms of patterns that arise when all viewer responses are put together (Figure 5-25 to Figure 5-27). Finally, the section covers the point at which viewer utterances move from descriptive to relative, and what that means in relation to proposed theories surrounding the viewer signifying process.

In the initial exposure, viewers were asked to make a preferential choice on which artefact appealed to them most for the purpose of subsequent discussion. They were aware that all visual artefacts would be discussed, a point which aimed to reduce undue pressure on this decision and allow for a fast appraisal, similar to what might occur in the everyday preferential selection of advertising material. The London participants uniformly selected visual artefact 3: *The Consensus Project* as the least preferred artefact, while all but one preferred visual artefact 1: *Keep Buying Shit* (Figure 5-22 and Table 5-9). Visual artefact 3, containing signifiers from the abstract end of the rhetorical imagery spectrum was likened to the types of charts that the viewers might see in their everyday work as the reason it was the least preferred:

> *"This one looks like, it's just another graph. I look at those quite a lot anyway. I'd rather look at something else."* —Viewer L4 referring to visual artefact 3: *The Consensus Project*

It should be noted that as all London participants were professionals working in the same large corporation, it is possible that there were common existing visual artefacts, or a commonality to habitus influencing their perception of visual artefact 3. Brisbane viewers, from a mix of professions and corporations, had a more mixed response, and again the different contextual backgrounds of these two sets of viewers from different parts of the global audience will influence the qualitative perspective. A deeper review reveals reasoning behind some of these preferences, focusing on how the viewers made their preferential decisions.

An interesting issue occurred for Brisbane viewer 7 (B7), a professional in a corporation, who indicated a preference for visual artefact 3: *The Consensus Project* over visual artefact 1: *Keep Buying Shit,* which she placed last. She was attracted to the simplicity of the aesthetic style of visual artefact 3, and repelled by the "messy" aesthetic style of visual artefact 1. During the second exposure, however, visual artefact 3 was increasingly viewed with suspicion and an oppositional stance was taken. Visual artefact 1, whose primary message the viewer admitted to not having read at first exposure, was increasingly viewed with a positive, aligned response, and preference for artefacts was changed.

> *"Probably because it looked really messy, but now that I'm reading the message on this, it actually appeals to me more than the last one... because when I read the message, because it's not that clear, when you actually read the message you think 'Yeah'."* —Viewer B7 referring to visual artefact 1: *Keep Buying Shit*

Viewer B7's preference and subsequent reading indicates that aesthetic style of visual artefacts, which influences viewer choice at the point of exposure and attracts viewers to investigate signs (Scott 1994; McQuarrie and Mick 2003), may be key to the success of ACC visual artefacts. Despite the strategic communication devices such as rhetorical style and framing, without an appealing aesthetic style, the artefact's signs may not be read at all. Discussion now turns to how these signs are decoded during the secondary exposure.

The secondary exposure to visual artefacts allowed for a more detailed examination of the signs, a constructed environment meant to simulate the next stage of reception of visual artefacts in situ after initial aesthetic preference. The order of discussion of the signs by viewers was shown in Figure 5-24 (from Appendix O, P and Q), and compared to the intended order of viewing as discussed by each visual artefact's producer.

### The signifying process

As Csikszentmihalyi (1997) proposed, small case numbers mean that the generalisations that can be made are different to quantitative enquiry. From a smaller sample, we can examine existing theories and perhaps find negative or supportive cases, or create alternative theories based on those results. Williamson's (1998) theory of a process for viewer reception—which she called a signifying process, through which viewers turn signified elements into signifiers—is examined in these results, as it forms underpinning theory for much of the existing discussion surrounding semiotic interpretation of visual artefacts and the way they are read by individuals (for example, Hansen and Machin 2008; Linder 2006; Phillips and McQuarrie 2004; Scott 1994). This process, and others similar (McQuarrie and Mick 2003) were produced for the consumerist advertising field, but the general theory can be appropriated here. This proposed process has three stages, and results from the previous section indicate that a stage needs to be added at the start of this process, whereby the viewer decides through aesthetic preference whether to continue exposure to the visual artefact at all (Table 6-1).

Table 6-1. Williamson's viewer reception process (1978) with new aesthetic attraction stage

| | |
|---|---|
| 1. | Aesthetic attraction / repulsion stage: viewer makes seemingly instinctive decision whether to engage with artefact or not |
| 2. | Viewer recognises certain signifiers and makes links between the signs, which this study refers to as description of signifiers |
| 3. | The viewer then moves to discussion about the signified, from a more personal, relative perspective |
| 4. | The viewer becomes created by the artefact, in a process called "appellation" which alters the way the viewer experiences the signified, placing themselves into the signified world the artefact creates. |

The secondary exposure to visual artefacts allowed for a more detailed examination of the signs, a constructed environment meant to simulate the next stage of reception of visual artefacts in situ after initial aesthetic attraction / repulsion stage. The order of discussion of the signs by viewers was compared to the intended order of viewing as discussed by each visual artefact's producer.

This pattern seen in Visual Artefact 2: *Apology From the Future,* an ideal type for analysis due to its spread of rhetorical signifiers, can result from a selection of different theories, such as the view that photographic images of celebrity politicians, those who are in office and have achieved that status due to their exposure and/or achievements (Boykoff and Goodman 2009) can engender a certain type of response in viewers. Certainly photographic representation of celebrities has been shown to be a relatable type of image (Shome et al. 2009; Leiserowitz 2006) which in turn is suggested to be important in the uptake of messages, as opposed to a more nature-based approach that discounts humans from the nature they are attempting to save (Doyle 2007). Other theories prefer an actor-based understanding, where the viewer's own set of dispositions and beliefs and knowledge afford different responses to such images (Brulle 2010; Tonkinwise 2011a; Leiserowitz 2006). These enquiries would be better served in a more quantitative study that compares different types of perceived celebrity, across different types of population.

Evident in the discussions from the viewers was that they understood the photographic images represented well-known figures of international governmental authority. Their process moved quickly to discussion on how these representational images were related to the issue of ACC, either positively as seen with respondent L2 or negatively as seen with respondent L3:

> *"I like it. I think it's an interesting angle. It makes me kind of annoyed. Not at the advert, but at the world leaders. I think it's a pretty stark statement of the truth. It makes me kind of annoyed at the inaction of the people who are meant to be leading the movement. In terms of the images themselves, it just makes me think Barack Obama looks old or he's not going to age well."*
> —L2 referring to visual artefact 2: *Apology from the Future*

> *"I've got mixed feelings about this one, because I think it's political. I think that recently I've just gotten tired about the whole of politics and all those talks and all those kind of things."*
> —L3 referring to visual artefact 2: *Apology from the Future*

Further discussion of how the viewers make meaning from these signifiers is found in the next section "How viewers make meaning by decoding signs in visual artefacts", however what has been demonstrated is that, with the addition of an aesthetic selection stage, the process of discussion matches the next two stages of the process of viewer reception as

outlined in Williamson's "stages of a viewer encounter" (Williamson 1978). The third stage, that of "appellation", in which the visual artefact influences the way the viewer experiences it, is highlighted through the discussion of polysemic nature of some signifiers.

### Polysemic signifiers

A polysemic signifier (Rose 2011) is one that has many possible meanings and interpretations. Most images are assumed to be polysemic, dependent on the context and on the viewer themselves. Graphic designers attempt to craft visual artefacts to limit this polysemic nature and highlight the intended message to be translated to intended audiences. The readings by the viewers of the three visual artefacts, in particular visual artefact 3, show how signs can be unintentionally polysemic, influencing the interpretation of the visual artefact and the viewer's positioning in the world that the artefact creates.

The summarised order of reading of visual artefact signifiers illustrates a pattern of polysemic viewer reading in the artefacts. Three of the four Brisbane subjects identified the support imagery of oil wells (for example, Figure 5-9.6) as a topic for discussion. This imagery, intended as decorative support imagery was instead read by the viewers as rhetorical, with intended purpose and meaning to be conveyed. Viewer B6, who sat closer to disagreement with ACC on the spectrum (Figure 4-19), found the image to represent a group that he thought did not deserve blame for a situation to which he did not subscribe.

> *"I suppose the oil well is a bit of a stand-out. Probably negative, depictive... a bit of blame."* —B6 referring to visual artefact 3: *The Consensus Project*

Viewer B9, who stated agreement with ACC on the spectrum (figure 4-1), found the oil well images confusing, as he read the support imagery with the same level of import as the more abstract graphs and charts.

> *"I don't think it's going to drive people to do something different or oil wells or whatever... who's going to relate to an oil well,? So, you know, like "What am I going to do about the oil well?". Yeah, maybe you can relate it to stop driving your car, if you've got half a clue."*
> —B9 referring to visual artefact 3: *The Consensus Project*

Interestingly, viewer B9 referred to the target audience as an out-group, rather than using himself as the referent for an inability to relate to the signifier or its assumed signified.

The third viewer, B7 read the oil well signifier as a synecdochal representative of the principal, which influenced the way that she read the other signs contained within the visual artefact. This reading allowed an oppositional, sceptical positioning within the world of the artefact, which in turn influenced how she decoded the signified information. This was in direct conflict with the position the viewer stated on ACC (Figure 4-19), which was full agreement.

*"Well, it looks like a corporate website, so it could be a corporation who are trying to justify their position. I mean, it's got the little oil wells down here, so to me that looks like it perhaps put out, could be someone like Texaco or Shell..."*
—viewer B7 referring to visual artefact 3: *The Consensus Project*

The commonalities in the viewer readings of visual artefact 3 illustrate that some images can unintentionally influence the message in ways not expected by the producers of visual artefacts. It also indicates that viewers move from initial aesthetic selection, to description of signifiers to relationship with the signified, and then to a state whereby the visual artefact influences the position they take within the world of the artefact. Evidence for this process is also found in the field of visual rhetoric, which may shed further light on how these visual artefacts
are read.

### Rhetorical Figures

Using the typology of rhetorical figures (McQuarrie and Mick 1996), the three selected visual artefacts provided insight into how particular types of rhetorical figure are received by viewers, varying the inquiry with ACC visual artefacts in place of consumerist artefacts.

McQuarrie and Mick (2003) identified two types of visual influence on viewer experience of visual artefacts: aesthetic pleasure and cognitive elaboration. Both types are present in the process of viewer reception as discussed in the previous section, with the very first stage, the aesthetic attraction/repulsion stage mostly influenced by aesthetic pleasure. Both are present in the remaining stages, with cognitive elaboration signalling the engagement that viewers experience with visual artefacts. Their study found that the arousal-release mechanism, a pleasurable, puzzle-solving aspect of cognitive elaboration leads to a favourable disposition towards the artefact, and that rhetorical figures with a greater degree of artful deviation (tropes, rather than schemes), were more likely to achieve this. They also found that schemes are likely to be more effective with viewers of limited abilities. This PhD study selected viewers likely to have a higher level of ability, and it was expected that trope artefacts would be preferred with this group of viewers to scheme artefacts.

This study approached the entire artefact as the rhetorical figure, rather than the suggestion by McQuarrie and Mick that this can be isolated as an element within an artefact, and inferences made from variables such as its type and positioning. Visual artefact 1: *Keep Buying Shit* is a simple example of how both types of signifier work together to communicate the message. Without its primary message, the photographic representation of object would be disjointed from its encoded meaning. Without its image, the primary message would be a statement without compelling illustration. Without both elements, the aesthetic style would be a purely abstract construct inhabiting the mind of the producer. This cooperative community of signifiers is replicated to more complex degrees in the other two selected visual artefacts.

As Table 4-3 shows, visual artefact 1 was classed as ironic, positioning it within the greatest degree of deviation group. Visual artefact 2: *Apology From the Future* as paradox the same degree of deviation, within the trope group. Visual artefact 3: *The Consensus Project* fits best within the scheme group, and shows the least degree of deviation, as it is a more simple delivery of information. According to McQuarrie and Mick, the result would lead to a greater enjoyment of visual artefacts 1 and 2. This is reflected in the viewer utterances for these artefacts. Viewers expressed amusement with visual artefact 1, as well as a range of other emotions. A good example is L2, who expressed simultaneous and conflicting emotions of humour and disgust. As disgust can result in "looking away" as a reaction to exposure (Greenfield 2008), this result is encouraging for the use of tropes in ACC visual communication.

> *"I just think it's kind of a really accessible message. You look at it and it's slightly funny. You kind of think, yeah. It's not the traditional message you're used to seeing around climate change. Kind of pictures of polar bears on ice caps and global leaders, desperate looking people. It's just kind of like, this is the actual reality of what you can do. You can make a big pile of shit and seagulls eat it...*
>
> *It kind of makes me laugh. It's a bit humorous. But it also makes me feel a bit disgusted."* —L2 referring to visual artefact 1: *Keep Buying Shit*

The McQuarrie and Mick (2003) study warns against too great a degree of deviation, and one viewer expressed confusion with visual artefact 2, which may have contributed to his negative assessment of the message.

Viewers expressed more negative criticism for visual artefact 3: *The Consensus Project* than for visual artefact 1. Much of the discussion of visual artefact 3 centred on the amount of reading that had to be completed before judgement of the message could be made. This was not portrayed as an enjoyable process. While this artefact was much more complex in terms of amounts of signifiers, its message was fairly simple. In contrast, visual artefact 1 had a simple, ironic set of signifiers (the image and the primary message) and a more complex message that was more open to interpretation. Viewer B9 stated he liked the ironic, somewhat cheeky message in visual artefact 1 and the paradox of visual artefact 2, but was critical of visual artefact 3:

> "I *think it's pretty blunt, it's pretty frank. It's got a nice little punch, it's got a nice little pun about the seagulls, yeah. It's good, nice message*."
> —B9 referring to visual artefact 1: *Keep Buying Shit*
>
> *"I quite liked this as well... I can quite easily relate to them saying "I'm sorry" in the future."* —B9 referring to visual artefact 2: *Apology from the Future*

> *"Just the graph style appearance of it. The graph doesn't really tell me anything and it's just a graph, what is it actually, I don't even know what it's..."*
> —B9 referring to visual artefact 3: *The Consensus Projec*t

The McQuarrie and Mick (2003) study used a similar outline of process to Williamson (1978), where Zone 1 equates to the aesthetic attraction/repulsion stage. Zone 2 is similar to the stage of description, where exposure to the artefact is achieved, but attention has not yet been engaged. Zone 3 could match the personal relation to the artefact, as there is a processing stage that would not match the simple description of signifiers in the second process. The study's 4th zone is depth of processing, which may include Williamson's appellation stage.

McQuarrie and Mick (2003) measure the success of rhetorical types by their ascension through these zones. As many questions were asked of viewers about these visual artefacts in a forced exposure situation, it is not possible to interrogate the data in this way, however it would be a useful avenue of enquiry for future studies, within a less forced environment and perhaps with a narrower focus on this outcome.

These findings contribute to theory by finding positive instances of the consumerist results correlating with ACC visual artefacts, building on this rhetorical theory. Rhetorical figures and their corresponding influences of cognitive elaboration comprise one of several aesthetic influences on the reception of ACC visual artefacts. This chapter now turns to a deeper examination of the meanings the viewers take from these readings.

### 6.4.3 How viewers make meaning by decoding signs in visual artefacts

Following from the previous section of they way viewers decoded the visual artefacts, this section focuses on how viewers make meanings from their decodings, with a particular focus on the perception of what is termed the professional code (Williamson 1978). Key factors that influence these viewer decodings will be discussed in the following and final section of the Discussion chapter.

A Bourdieusian approach, as outlined in the methodology chapter, allows for investigation of the systems of principles, or conditions that viewers apply when decoding visual artefacts, and how these systems relate to the communication of symbolic representations of the dominant hegemony, as proposed by Antonio Gramsci (Kurtz 1996). This hegemony was represented for the viewers of the three visual artefacts in terms of their perceptions of the professional code, according to a common group of conditions. These conditions and how they relate to the professional coding are discussed in the next section.

### Professional code

The interplay between corporate brands and grassroots organisations in the communication of ACC is a much-discussed topic in the literature surrounding communication of ACC issues (Regniez and Custead 2011; Nerlich, Koteyko and Brown 2010; McKie and Galloway 2007). These authors indicate that relationships between these groups is key, with clear boundaries between the types of organisations required to engender trust. While these theories are used to justify communication strategies, analysis of the translation of the intentions of the principal and the strategy for communication into visual artefacts is not found in existing studies on ACC communication. This section aims to outline how viewer "decoding" of visual artefacts can impact the perception of the principal behind a communication. The viewer decoding has the potential to alter the perceived message (Kahneman, Slovic and Tversky 1982), potentially rendering any high-level communication strategy ineffective in practice.

Viewers decoded the three visual artefacts into two broad types of coding that align with theory that discusses the professional coding of visual communications (Berger 2010; Williamson 1978) The first of these two types is the hegemonic code (Kurtz 1996), which represented for the viewers the hegemony in the context of ACC: corporations, governments, news media outlets, fashion and retail sectors (Table 5-14), in many cases using Scott's assessment that styles of visuals link them to other visuals (Scott 1994). The second type is the counter-hegemonic code (Rose 2011), which represented community and grassroots organisations, charities, universities and individuals (Table 5-15). Several causal conditions contributed to these types, and those conditions will be addressed in the following paragraphs:

» Emotional response and perceived emotional claims

» Hidden agenda 1: rhetorical representations

» Hidden agenda 2: representation of principal

» Colour signifiers

### Emotional response and perceived emotional claims

Emotional responses to the visual artefacts played a key part in determining professional code types by viewers. Much of the literature that guided theoretical selection of the visual artefacts pointed to emotions such as fear and disgust as barriers to communication, resulting in avoidance of the issue or "turning away" from disgust-evoking images (O'Neill and Nicholson-Cole 2009; Joffe 2008; de Hoog, Stroebe and de Wit 2005). For some viewers, the presence of emotional claims was actually a signifier of the counter-hegemonic code, which led to assignation of professional code type as part of the decoding of the visual artefact:

> *"It doesn't look like it's a group of Green activists, there's no sort of emotion, and 'We're killing everybody', you know."*
> —viewer B7 referring to visual artefact 3: *The Consensus Project*

> *"Because they're passionate about it. They just come at it from a different angle than your more regulatory or authority stance."*
> —viewer L4 referring to visual artefact 1: *Keep Buying Shit*

Viewers had the strongest emotional response to visual artefact 1, followed by visual artefact 2, and the least emotional response to visual artefact 3 (Figure 5-39).

Responses to visual artefact 1 described an array of negative emotions. With a small sample size, little can be drawn from the comparison of numbers other than a general pattern of how strongly the viewers felt. What can be argued is that this emotion did not deter any of the viewers—from any part of the ACC agreement spectrum—from understanding and interpreting the visual artefact with the preferred reading. One viewer responded with a lack of trust of the message (indicated by "No"), but defined this is as the problem discussed in the next section, which is lack of clear statement of the principal authority behind the message:

> *"No. And that's because who is this?"*
> —B8 referring to visual artefact 1: *Keep Buying Shit*

In contrast, six of the nine viewers reported no emotional response at all to visual artefact 3, although one viewer did record the sensation of hope, the only instance of this reported in response to any of the visual artefacts. This lack of perceived emotional response contributed to the perception of hegemonic code for this artefact in several respondents:

> *"I mean Climate Change to me brings vision of pollution in third world countries, and weather changes, so it doesn't really indicate anything like that. It doesn't indicate anything emotive."*
> —B7 referring to visual artefact 3: *The Consensus Project*

This finding also brings to light the proposal that a lack of emotional claim has a more negative effect in viewers than negative claims. As the visual artefacts did not provoke high levels of reported fear, this proposition would bear further testing in future studies. The causal condition for the viewers was therefore that the presence of an emotional claim, either perceived as present by the viewers, or validated by the presence of an emotional response, is a signifier for the counter-hegemonic coding of visual artefacts.

### Hidden agenda 1: rhetorical representations

The second causal condition relates to the use of images across the spectrum of rhetorical signifiers as seen in the typology of visual signifiers, Table 5-1. More representational imagery, in particular, the photograph seen in visual artefact 1: *Keep Buying Shit*, was identified as a truthful representation of the referent. This truth perceived through photographic representations of object appears to be a marker for transparency in the professional code, and dependent on the referent object or objects, helps define the visual artefact as belonging to one or other of the two types of professional code.

> *"It's just kind of like, this is the actual reality of what you can do. You can make a big pile of shit and seagulls eat it."*—L2 viewer referring to visual artefact 1: *Keep Buying Shit*

The contribution of this perception of truth in photographic imagery will be discussed in greater detail in following sections (particularly, "Seeing is believing"), as it makes a contribution on its own to decoding the visual artefacts. As well, it exists here as part of a set of causal conditions, or system of principles that determines how visual artefacts are coded between the two types. Within this system, photographic representation of object appeared to work in tandem with a second 'hidden agenda' causal condition, which is the representation of the principal behind the message.

### Hidden agenda 2: representation of principal

Visual artefacts 2 and 3 make a clear statement of principal using a visual symbol, or a logo using graphic design terminology, while visual artefact 1 makes no statement. The difference between these two signifiers, catalogued as "secondary messages" within the typology of visual signifiers, is that the signifier in visual artefact 2 is known to belong in the counter-hegemonic category of viewer coding, and the signifier in visual artefact 3 is unknown. As only visual artefact 2 can assume coding based on this signifier, visual artefacts 1 and 3 rely on types of imagery to create the "hidden agenda" condition.

As London viewer 1 describes below, without a clear idea of who is the principal, the type of rhetorical image plays a key factor in determining from which end of the professional code spectrum the ad is to be experienced. The abstract representations, viewed without a clear statement of principal combine to affect trust, while the photographic representation causes the viewer to code visual artefact 1 as counter-hegemonic.

> *"I wouldn't necessarily trust it because there's a lot of statistics in there, there's a lot of information in there. The previous one [visual artefact 1] is very simple. There's no hidden agenda. Whereas this one would appear to possibly have a hidden agenda with regards to who is driving it. Whereas the other one [visual artefact 1] just looked like it was an interested party trying to help."*
> —L1 viewer referring to visual artefact 3: *The Consensus Project*

Most viewers for artefact 1 made their own determinations at the principal authority behind the message. Without a logo signifier, they relied on other principles of the professional code already discussed in previous sections, such as emotional claims or reactions, and the use of photographic representations of object as a rhetorical signifier. The imagery provided viewers with what they perceived as a truth or reality that they could actively relate to, negating the "hidden agenda" perception that could have clouded decoding of this visual artefact.

Four of the viewers for visual artefact 3 indicated a lack of trust for the message, with confusion surrounding the principal as a key cause. Lewandowsky, Gignac and Vaughan (2012) discuss the condition whereby consensus appeals can be less successful if related to an authority rather than to a popular, more grassroots position.

Speculation as to the principal ranged from political parties and corporations within the hegemonic code, to universities or groups of scientists within the counter-hegemonic code (Appendix B). Photographic representation was not a key causal condition for coding, but the lack of the perception of truth evidenced by photographic representation, combined with a lack of indication of principal, did contribute to a negative comparison to the counter-hegemonic code by the "hidden agenda" condition.

### Colour

The next causal condition that viewers used to make decisions on professional coding was colour. Viewers reported strong correlations between colours and corporations, colours and signified concepts, as well as colour that did not fit their expectations of professional design application.  While these findings cannot contribute a generalised system or typology of colour for environmental messages (indeed, such a typology would be difficult to produce with any type of academic rigour), they do indicate that colour selection can have a significant impact on viewer perception and coding.

Intentions of the producers when deciding colours as part of their design process were varied. Diego, producer of visual artefact 1: *Keep Buying Shit* used a referential technique during his process, where a mental connection was made between visual and written referents in the artefact: seagulls and "shit", resulting in a particular yellow that for him referenced "bird poop". The colour also represented both the "raw", urgent style of the artefact, and a rebellious positioning towards his perception of the hegemony within the design field:

> "*It's also a no-no for type usually, against a backgound like that. I always got in trouble with the purist Swiss teachers. They hated me. You can't do that with type. I'm like, well I just did and you're dealing with it*."
>
> —Diego, Producer of visual artefact 1: *Keep Buying Shit*

In contrast, Matt (producer of visual artefact 3: *The Consensus Project*) used a conscious application of his understanding of colour meanings:

> *"Psychologically, red was kind of the colour to go to, just because it's the alarming colour. Blue and green are the happy earth colours, but that's really not the message that we're trying to convey here. We wanted something that would convey some sense of alarm."*
> —Matt, Producer of visual artefact 3: *The Consensus Project*

The decodings of the viewers contrasted to both of these producer assumptions. Five of the nine viewers made a point of discussing that the yellow made the text hard to read, according to their own experience of the artefact, or to their understanding of colour reception, such as issues with dyslexia. This would support the theory that Diego was rebelling against, but as noted by London viewer 3, that difficulty and disturbing sensation was likely the intention.

The heavy use of red colours used in visual artefact 3 were interpreted as relating to global warming, heat and doom rather than warning. Viewer B9, who subscribed to ACC noted that the message did not use a more counter-hegemonic colour:

> *"It's interesting there's no green or anything like that "*
> —B9 referring to visual artefact 3: *The Consensus Project*

The colour scheme for visual artefact 3 was also related to specific companies that sit within the dominant code, such as McDonald's and Sainsbury's (a UK supermarket chain), or financial news outlets such as The Economist or The Financial Times. These findings suggest that colours can be as polysemic and emotion-provoking as images when used for a rhetorical purpose.

The causal conditions for assignation of either the hegemonic or counter-hegemonic code to visual artefacts are by no means exhaustive, rather they constitute the conditions that became apparent during the reconstructed instances of the visual communication of three visual artefacts. These conditions contributed to the creation of a code, which in turn guided the position of viewers during their exposures to the visual artefacts. Discussion now turns to how this code and other considerations influenced the viewer perception of the three visual artefacts.

## 6.5 What influences viewer decodings

### 6.5.1 Contribution of professional code to perception of principal or authority

As Bourdieu argues, language does not exist merely as a system of signs to be decoded by viewers, it also relies on signified "authority and wealth" (Loesberg 1993) for communication. This relates to Barthes' second level of signs, where the signified meanings in artefacts

become signifiers themselves. Again, viewer B7's response to visual artefact 3: *The Consensus Project* highlights this issue, where the dominant code becomes a signifier for the perception of the principal issuing the message contained in the artefact.

Viewer B7 interpreted visual artefact 3 using the hegemonic code, and like most of her fellow Brisbane viewers, was also influenced by reading rhetorical purpose into supporting imagery. She suggested the aesthetic style of the visual artefact to those used by hegemonic entities:

> *"Well, it's very simplistic looking, so it looks similar to maybe a corporate type of website, a corporate design."* —viewer B7 referring to visual artefact 3: *The Consensus Project*

As indicated in the previous section, her position within the world of the visual artefact became oppositional, despite her aesthetic preference for this artefact in the initial exposure. As the interview progressed, her assessment of the signified facts and statistics were influenced by this position:

> *"I'd have to really read it and make up my own mind, but when they throw things like ninety-seven percent makes me a little bit sceptical, because it says of published climate papers. Well, that's just a throwaway line."*
> —viewer B7 referring to visual artefact 3: *The Consensus Project*

> *"The other one was very vague, you know, ninety-seven percent of all Climate Change papers, well how many of those have been written? That's just a made up statement really, isn't it?"* —viewer B7 referring to visual artefact 3: *The Consensus Project*

What was considered compelling evidence—clear communication of the scientific consensus on climate change (Lewandowsky, Gignac and Vaughan 2012)—displayed in a simple, understandable aesthetic style by the producer, and received well aesthetically by a viewer already aligned to the message, still resulted in an oppositional stance and a lack of trust. While it is known that cultural codes influence our behaviours (Berger 2010), this influence of interpretive codes developed through responses to aesthetically-styled visual artefacts was not as well understood. The hegemonic coding, in particular the "corporate style" and the support imagery (oil wells: for example, Figure 5-9.6) that was decoded as rhetorical and a synecdoche of the principal appear to have influenced this viewer's positioning within the world of the artefact, and subscription to the message itself.

This influence of professional code on Brisbane viewer 7 (B7) is further illustrated by responses to visual artefact 2: *Apology from the Future.* Although visual artefact 2 stated a well-known environmental group as principal—"Greenpeace", itself a descriptor for this viewer's conditions for counter-hegemonic code—B7 indicated confusion due to the hegemonic code aesthetic the artefact was perceived to exist within:

> *"Well, they'd like you to think it's Greenpeace... but whether that really is, it is Greenpeace or not, I'm not sure.*
> *Well, I guess you think Greenpeace are sort of activists and this looks quite corporate as well and they don't give the impression of being in a corporate environment but maybe they are now, that's who they're targeting. Maybe changed from being wild activists..."*
> —B7 viewer referring to visual artefact 2: *Apology from the Future*

This suspicion could also be attributed to a general framing of suspicion and an increase of this oppositional stance during the interview. Discussion of visual artefact 3 was the last of the three to occur, and the respondent had already been asked questions regarding trust of message twice, as well as one question referring to trust in science by this stage of the interview. However, this context does not necessarily discredit the viewer's perspective, as this type of suspicion could be generated by any number of variables within a natural environment. What it does raise questions about is the assumption that a simple representation of principal such as a logo is enough to guarantee perception of principal, without consideration of the professional codes that aesthetic styles can indicate.

While B7 was a good example of this theory of influence of professional code, we need to examine other responses with reference to the causal conditions to detect other patterns or occurrences. Table 5-9 reveals that B7 and B8 initially preferred visual artefact 3: *The Consensus Project*, the only respondents out of the nine who did. B6 showed aesthetic preference for visual artefacts 1 and 2, and as seen in Figure 5-32 was the most sceptical of ACC but stated trust of the message of visual artefact 3. B6 will serve as an example of non-ideal type, along with L3, who also least preferred visual artefact 3, but subscribed to both the message and to ACC. L2 shared these three classifications with L3, but was excluded due to earning a science-based tertiary qualification which is likely to have been a key influence on the perception of scientists and the scientific facts in visual artefact 3 (Figure 5-69).

Following the causal conditions proposed in the previous section, B8 stated no emotional response to visual artefact 3, a possible condition for perceiving it as belonging to the hegemonic code. Colour did not appear to have a bearing, as the red was decoded only as "doom and gloom", and the hidden agenda condition showed that no recognisable logo was a positive for visual artefact 3, as it did not represent a government-type authority. Research-based universities were decoded as the principal, with a lean towards these institutions belonging in the hegemonic code evident. Interestingly, B8 highlighted the lack of recognisable principal in visual artefact 1 as the key negative influence on trust, and perceived visual artefact 1 as belonging to the counter-hegemonic code. Visual artefact 2 was perceived as falling within the hegemonic code, and B8 stated trust for both hegemonic code visual artefacts 2 and 3.

*"I think that's more because I see this as being corporate."*
—B8 referring to visual artefact 2: *Apology from the Future*

For the negative cases, viewers L3 and B6 were selected. L3 aligned with ACC, and stated a counter-hegemonic disposition. L3 had a non-emotional response to visual artefact 3, but perceived the principal as a counter-hegemonic environmental organisation. There was mention of hegemonic coding with colours through mention of what financial magazine the aesthetic style might suit, but this was not as explicit as the perception of principal. L3 did not consider there to be a hidden agenda, and assigned the counter-hegemonic code to all three visual artefacts, stating trust for all three. He had a slight mistrust of visual artefact 2, as some doubt was cast on whether it was actually Greenpeace as principal, but discussion moved quickly to trust assuming this was not misrepresentation.

Viewer B6 had the most sceptical stance on ACC, and preferred the other visual artefacts over visual artefact 3. B6 described a non-emotional response, and likened the artefact to a "powerpoint presentation", mentioning that he did not align with the negative depiction of the oil wells (for example, Figure 5-9.6), intended as support imagery but decoded as rhetorical. This ACC scepticism and subsequent discussion suggest an alignment with the dominant hegemony, which correlated with the trust stated in the visual artefact 3 message.

*"It seems to be more for a formal presentation as opposed to an advert or something to get your attention."*
—B6 referring to visual artefact 3: *The Consensus Project*

Visual artefacts 1 and 2 were coded counter-hegemonic, and B6 did not state trust in either of the decoded messages or perceived principals.

Table 6-2. Influence of professional code on viewers of different dispositions

| | | |
|---|---|---|
| B7 | Aligned with counter-hegemony, considers science dominant hegemony, particularly in relation to corporate influence | Trusted only counter-hegemonic, emotionally-charged artefacts |
| B6 | Aligned with dominant hegemony | Trusted only the hegemonic code artefact |
| B8 | Mostly aligned with ACC, but also dominant hegemony | Trusted only hegemonic code artefacts |
| L3 | Aligned with counter-hegemony, decoded all artefacts as counter-hegemony | Trusted all 3 visual artefact messages |

The comparative findings suggest that a combination of disposition and professional code perceived through aesthetic style directly affected viewer uptake of message. This parallels Bourdieu's conclusions that rhetoric must fit the doxa of the viewer to be successful (Schirato 1997, 1998). Understanding doxa through the dominant and counter-hegemonic code contributes to understandings about producing rhetorical visual artefacts,

in particular, challenging the assumption that for ACC visual communication, viewer doxa may not be assumed to align with dominant hegemony of economic rationality and consumerism (Scheufele and Tewksbury 2007; Tonkinwise 2011a; Agid 2011; Loesberg 1993; Buchanan 1992).

While other studies take this message-tailoring perspective from the direction of framing (for example, Bostrom,Böhm and O'Connor 2013; Bain et al. 2012; Maibach et al. 2010; Nerlich,Koteyko and Brown 2010; Nisbet 2009; Leiserowitz 2006), this study identifies that the aesthetic coding of the translating artefacts was a key contributor to how messages with varying frames are received by audiences. Bain et al. (2012) found that respondents from certain dispositions aligned with types of framing that supported the perceived position of their personal or group identity (Bain et al. 2012), in particular that societal development and interpersonal warmth was selected as the frame most likely to effect personal behaviour change. However, that study used only spoken and written methods of translating the framed message. The results in this study demonstrate that the Bain et al findings may not be supported when the variable of aesthetic style is present in the communication.

Helen Joffe (2008, 660) states that the information found in visual artefacts is "likely to play a powerful role in 'positioning' public conceptions of climate change." She also proposes in a later paper that visuals add validity to messages on climate change (Smith and Joffe 2009). While this study neither sought nor achieved refutation of these claims, it demonstrates that pre-existing beliefs and dispositions, in concert with coding influenced by aesthetic style, may in turn 'position' the information translated by the visual artefacts. This finding supports assessments that many studies assume a level of ignorance in viewer audiences (Nerlich,Koteyko and Brown 2010), rather than approaching with a respect for the complexity of human capabilities (Scott and Batra 2003).

Viewer B6—who would be classed as a climate change denier in the Bain study (2012) for positioning himself at the non-agreement end of the ACC spectrum (Figure 4-19)—was the only viewer who sat within the stated target audience of the producer. The positive reception according to the stated position of trust suggests that the hegemonic coding may be successful as long as the viewer's disposition is to trust the dominant hegemony. For those who align with a more counter-hegemonic position, the opposing effects may be experienced with a hegemonically-coded visual artefact.

While the target audience viewer is addressed and reception is positive, the producer noted that actual target audience was far wider and included scientists and those who agree and align with ACC. The producer also noted that photographic representation imagery had more of an impact in the subsequent social media material produced within the campaign, which leads us to the next part of the discussion on influences affecting viewer decodings, the influence of different image types.

### 6.5.2 The influence of image types on audience reception of visual artefacts

The visual artefacts selected for study were aligned with two areas of theory on ACC communication. The first of these groups of theory was suggested by Smith and Joffe in their study of visual imagery in the British press (Smith and Joffe 2009). Three types of imagery were highlighted: imagery that brought the threat 'closer to home'; imagery that used 'personification of climate change'; and 'graphical representations of climate change'. As no further investigation of these types was undertaken, this study investigates these three types and the influence they might have on a viewer audience. The types are represented in order by the three visual artefacts, and the types of signifiers they use to communicate their messages.

This section will first examine relationships between seeing and trust (or belief), and between emotion and trust as experienced by the viewers of the visual artefacts. Photographic representations of object are then examined and compared with illustrated representations of concept, the two ends of the image signifier spectrum (Figure 5-1).

#### Seeing is Believing

Malkewitz,Wright and Friestad (2003) suggest that—due to advances in digital editing techniques—photography is perceived as less trustworthy than in the twentieth century, when photography was "believed". They propose that visual communicators should rethink their approaches in line with this idea. This suggestion is not supported by the utterances relating to the photographic imagery for visual artefact 1: *Keep Buying Shit*. Utterances relating to the photographic representation of object in visual artefact 2: *Apology from the Future*, which was clearly digitally altered, was also somewhat trusted by viewers. Of course, they could recognise the faces of the world leaders, a powerful aid to belief. The lack of visuals for visual artefact 3: *The Consensus Project* was highlighted as a potential influence for a lack of trust.

Visual artefact 1: *Keep Buying Shit* contains a full-scale photographic image that is representational of an object. It is placed on the far left spectrum of rhetorical imagery types used in this study. The image is a full colour, eye-level print of a rubbish heap that the producer found in a library of images for use at the Rhode Island School of Design (RISD). At full size, the image is noticeably comprised of small "rosettes", the grouping of colours to create images that is a result of the offset lithography used for professional printing. It also displays creases and other imperfections in the print that the producer described as "raw". None of the viewers noticed this rough style, as the image was reproduced at a much smaller size for the purposes of the interviews. Despite this image potentially not being local to either the London or the Brisbane viewers (its actual location and date is unknown), all viewers related to the rubbish heap personally, with some describing instances were they had seen something similar, using the image as a universal representation of all rubbish or waste heaps.

Bourdieu contends that viewer judgement of truth, or in his words, value, of a photograph is *" ...measured by the interest of the information it conveys, and by the clarity with which it fulfils this information function"* (Bourdieu 1984, 35). Many viewers referred to the image as a reflection of reality or truth, and used terminology such as "evidence" when discussing photographic imagery for all visual artefacts.

> *"It's just kind of like, this is the actual reality of what you can do. You can make a big pile of shit and seagulls eat it."*—L2 referring to visual artefact 1: *Keep Buying Shit*

This interpretation of the truth or reality found in photographic images raises questions as to the social contexts we find ourselves in. Potential factors such as Baudrillard's concepts of hyperreality and simulacra (Harden 2011; Cole 2010; Rose 2011) posit that we have moved beyond the conception that photographs can no longer be trusted (Malkewitz,Wright and Friestad 2003), but that it is more difficult to make distinctions between what is real and what is not, as we now inhabit an environment saturated with simulations. Using the concept of hyperreality, the image is both a representation of an unknown rubbish tip, and a sign that represented more concepts for the viewers: human waste, human laziness, recycling and so on. As highlighted in the literature review, a more present-focused understanding of time gives this image an urgency that the more future-based, conceptual images of the other two visual artefacts seemed to lack. In Morris and Sayler's 2014 essay, they discuss the idea of "seeing is believing" by referring to Duchamp's idea that belief is a system of assumptions, as opposed to knowledge, which is a more objective, empirical verification. One can "know" a fact, but—as is potentially the case for ACC— believing in that knowledge is a different experience altogether. They instead prefer "seeing is knowing", and propose that believing often precedes the seeing of an image and can influence its reception. Where the viewers saw the rubbish tip, it was their understanding of the image as a sign that they engaged with, indicating belief rather than knowledge. This image-based idea is close to the concept of habitus, and systems of principles that viewers constructed for the three visual artefacts can be seen to have contributed to their belief in the visual messages they were decoding. Lastly, the vividness of the image, and its likeness to rubbish tips in the habitus of the viewer respondents may have contributed to their belief through the "availability heuristic" (Tversky and Kahneman 1974).

In visual artefact 2: *Apology From The Future*, the photographic image resembles well-known heads of government. These heads of government are signified in this study's results as Barack Obama, President of the United States of America, but the secondary exposure to viewers included Angela Merkel, the Chancellor of Germany and Kevin Rudd, Prime Minister of Australia (Figure 4-22). Political figures are commonly used in media communications (Smith and Joffe 2009; Boykoff and Goodman 2009), with either negative associations, or a more positive association. These two types of association represent the two ends of the ACC agreement spectrum. In this instance, the politicians are projected to be associated negatively with ACC agreement, but as it is a future-based speculation, the implied suggestion is that

they can yet become a positive signifier of ACC. These images have been recognisably digitally altered, with an aged aesthetic applied by the producer to convey the message. Respondents, while acknowledging this simulation aesthetic, still referred to the images as the true referents, and moved quickly to discussion of how they related personally to the referents and messages.

Viewer L5, for whom this was the preferred artefact, recognised the face of Barack Obama and stated this recognition as the reason for this choice. This recognition again relates to the "availability heuristic" (Kahneman, Slovic and Tversky 1982), where artefacts that are more easily recalled from memory are more likely to be judged as true.

Without an object referent, or representation of reality, respondents were less sure of the truth of the message being sent and relied on other variables such as their perception of social consensus to make their judgements (Festinger 1954, in Winkielman et al. 2003). L3 stated full subscription to ACC but not trust of scientists where there was hegemonic, corporate influence. As shown in the previous section, positioning the artefact within the hegemonic code is a likely negative influence for those who do not align with the dominant hegemony.

> *"Well, it tells you that you're the cause. It tells you that you're the cause, but I don't know. I don't think so. I think the evidence is there, but it's scientific evidence. You can't see that direct picture, this is what you've done. You have to pay for it."*
> —L3 referring to visual artefact 3: *The Consensus Project*

### Photographic elements and the Point of Conversion in visual artefacts

Visual artefact 2: *Apology From the Future* is a more ideal case for a closer inspection of the power of photographic representations of object than visual artefact 1: *Keep Buying Shit*, as it contains more signifier elements, which in turn can provide opportunity for an intra-artefact comparison. Visual artefact 3: *The Consensus Project* serves as a negative case for comparison, as it contains no photographic representations, but does contain an illustrated representation of object that is interpreted in some instances as rhetorical. The key method for analysis of these images is the point of conversion, at which the utterances move from description to personally-relative, identifying likely visual triggers for the deeper level of engagement.

The results showed a consistent point of conversion in visual artefact 2, which was, for all but one of respondents, the photographic images of heads of government in 2009 (Table 5-11 and 5-12). Studies point to the proliferation of photographic images of celebrity politicians in the ACC communication field (Leiserowitz 2006; Boykoff and Goodman 2009) and discuss their effectiveness. However, this is taken from the perspective of a celebrity endorsement, not using the more negative frame of visual artefact 2. The measure of success of these

photographic images is not that the referent is framed positively or negatively in relation to the object, nor how that frame is perceived by viewers, but whether the image engages the viewer. This moves the viewer to stage 3 in the reception process (Williamson 1978), and Zone 3 in the McQuarrie and Mick (2003) levels of engagement, a goal which they state is a key aim of visual rhetoric.

The rubbish tip image in visual artefact 1 is not in itself emotive. It requires the help of the primary message to convey the emotive, tragic apocalyptic meaning, and results showed that most viewers' point of conversion was at this visual element. This reveals the emotional appeal as a key driver in engaging the viewer for this artefact. Viewers also stated a belief in the image, regardless of its location or age, and were much more engaged than the "seeing is knowing" model (Morris and Sayler 2014) would suggest, furthering the idea that the emotive primary message was key.

Visual artefact 3 provoked an inconsistent point of conversion for the viewers (Table 5-11 and Table 5-12). The most common point of conversion was at the primary message, which is likely an easier signifier to decode than the more abstract representations of concept, an already agreed construct of language aids the decoding of the signifier. Abstract representations of concept were equally common, but within this type there was some variation between graphical representations of line and pie graphs. These results suggest that the key focus for relating to the artefact varied when the artefact is predominantly abstract, compared to a more predictable outcome for the artefact that has less abstract representation of object. A variable that may influence this suggestion is that faces, and celebrity images in particular engender a personal response.

> *"From what I can see directly, not a great deal of trust. Because it's kind of as though there's no people involvement in it. It's difficult to initially see the backing up of that data. It's sort of them saying this is what we think. And I'd want to see some evidence backing up the findings rather than just exactly what you can see there. So maybe not a great deal of trust."*—L4 referring to visual artefact 3: *The Consensus Project.*

Visual artefact 3 lacked emotional claims, focusing on a more rational appeal to values. Viewers moved from descriptive to relative at a wide variety of points, showing a clear lack of focus for the viewer habitus that came to be revealed throughout the study. When reduced to signifier types, the primary message signifier was equally matched by 4 viewers' point of conversion being the illustrated representations of concept. This may indicate that a less emotive appeal results in a lower level of engagement with viewers. While different types of aesthetically-styled imagery have a major influence, this chapter now moves to the types of message frame and their impact on the relationships between the human and visual artefact actors.

### 6.5.3 Rhetorical framing

This section investigates the influence of the two types of framing that informed the study: values-based, or deep framing, and apocalyptic framing. The study by Foust and Murphy (2009) into the reception of apocalyptic framing sensitised the study in terms of the two types: tragic apocalyptic framing and comic apocalyptic framing. The writings of Brulle (2010), Lakoff (2010), with reference to Pierre Bourdieu and others, and finally Corner and Randall (2011) were the key contributions, to the values-based, or deep framing investigation.

The three ideal types of rhetorical framing were judged by the researcher, and it is noted that the researcher's assumptions, habitus and aesthetic judgement from a producer perspective was potentially as major an influence on selection as the sensitising theories. It was decided that the selection of rhetorical types could best be supported or refuted, and in the process, analysed by the responses of the viewers with reference to the ideas these cases may represent.

As classified in the methodology section, a key variable used to select the apocalyptic visual artefacts was telos, where comic apocalyptic framing displayed an open-ended possibility of change, and tragic apocalyptic framing portrayed a closed and decided ending.

Two questions were asked for each artefact, several questions after emotions had been discussed, (Appendix J) to expose what perceptions of the telos variable existed. The first question asked whether the viewer felt that the visual artefact helped them feel they might make a difference, and the follow-up question asked whether the artefact inspired feelings of hope, or resignation, or anywhere on the spectrum between the two. This yielded interesting and unexpected results.

As visual artefact 1 was intended to be received as a tragic apocalyptic message, the lack of stated hope was to be expected (Figure 5-50). Most viewers, however, felt that they could make some difference, indicating that the time scale is not yet closed, that there is still time. Using the same variable the researcher used for theoretical selection of this case resulted in visual artefact 1 not perceived as an ideal type of tragic apocalyptic rhetoric.

Visual artefact 2 inspired a more mixed response, with a more even spread of hope to resignation (Figure 5-51). Responses to "ability to make a difference" returned a more negative result, but two viewers reported a matching response of resignation as an inability to make a difference. Both viewers reported different results for visual artefact 1, with a spread between the two responses, and one far more positive than the other. It was not possible to determine whether this artefact was perceived as ideal according to this dataset.

Visual artefact 3 returned a much more negative result than the other two artefacts, with mostly negative lack of hope, and no reports of the feeling of being able to make a difference (Figure 5-52). This seemed to indicate that the viewers perceived the telos for this artefact

as closed, possibly indicating a type of tragic apocalyptic rhetoric. Again, two (different) respondents showed no difference between the statements. Through this analysis, it is possible that viewers placed visual artefacts 1 and 3 within different rhetorical frames to the assumptions made for the research. Investigating the responses to visual artefact 1 as an ideal case of values-based rhetorical frame, or deep framing, will follow.

Figure 5-53 shows the spread for each respondent for whom data was collected. Extreme spread utterances were investigated, as instances of no spread supported the assertions in Foust and Murphy (2009) surrounding a lack of hope and the less effective tragic apocalyptic frames that use this technique. For viewers L1 and L4, a lack of hope did not also mean a feeling of not being able to make a difference, an idea also mentioned in the Foust and Murphy (2009) study. L1 felt a personal relationship to the type of waste shown in the image, relating her experience of being in a remote part of the world and seeing human-produced rubbish. She reported strong feelings of sadness, but reported that the artefact would produce mindfulness and a change in behaviour. L4 was less hopeful because there were no solutions offered, which does support the idea of tragic apocalyptic rhetoric. While he referred to those producing the waste as an out-group, he did think that the artefact would promote behavioural change for those members. This again is in contrast to the Foust and Murphy (2009) study which asserts that the apocalyptic frame is not an effective rhetorical strategy.

As visual artefact 1: *Keep Buying Shit* tended towards a values-based framing in viewer perception, visual artefacts 2 and 3 were also investigated for extreme spreads to support the finding. Visual artefact 2 had three instances of lack of hope aligning with a feeling of not being able to make a difference, and smaller spreads between hope and the ability to make a difference. The most extreme spread was again for L1, who felt more hope, but less ability to make a difference, which she felt only as an individual. When part of a group, she did feel that she could contribute, and in her utterances in response to the question of hope, she did indicate a stronger feeling that she could contribute as a group to making a difference. For B9, who had a lesser spread, the contribution was reversed. He felt he was already making a difference as an individual, but as a group expressed a lack of ability to have an impact. His levels of hope were attached to his perception of the celebrity politician, and the alignment with his own views on the effectiveness of these types of authority.

The most extreme spread in visual artefact 3: *The Consensus Project* was found with L4. His position on the ACC scale was undecided, and he expressed a level of hope generated by the artefact. His concern about not being able to make a difference related to there being no specific instructions on actions and behaviours he could alter to contribute. He made comparison to visual artefact 1, which contained a simpler, seemingly easier action: the ironic, reversed call that actually requested viewers "stop buying shit".

What was most interesting from this set of results is firstly that a lack of hope did not always lead to a feeling of helplessness, and that artefacts sitting within the apocalyptic frame can still have appeal, contrary to the findings of Foust and Murphy (2009). Secondly, that artefacts can sit within different types of frames according to their aesthetic and their message, and that negative messages can still result in positive outcomes. This section will now examine the values-based frame, or deep framing rhetoric in this light.

### Values-based Framing

Values-based framing artefact is part of a wider group of framing artefacts that will serve to contribute to the social world by either maintaining or altering the ways in which the ACC issue is perceived by individuals. As such, it is a little unfair to assess this artefact as a stand-alone example of a larger network of communication in progress. This study has shown, however, through discussion of viewer perceptions of professional code, that a less emotionally-charged, less "alarmist" frame was received positively by the respondent who does not align with ACC. In other words, it is possible to circumvent Lakoff's "wrong frames" held by audience members, with informed use of professional codes to translate key messages.

While it may be possible to appeal to viewers holding "wrong frames" using informed application of aesthetic style, Lakoff's proposal is to talk to viewers at the level of values. This was better reflected by viewer utterances relating to visual artefact 1: *Keep Buying Shit*. Discussions of a values-based nature were evoked through the use of and ironic trope: what seemed a tragic apocalyptic message actually appealed to the values of the viewers. This values-appeal also provoked declarations of participation in recycling and concern for the reduction of waste as type of social capital. While viewers mentioned that they could make less contribution to waste, their emotional responses positioned them within the in-group of recyclers, opposed to the out-group of those who had no concern for their waste production. This out-group was viewed with anger, irritation and disgust, with indications of sadness at their actions, or inaction. Only one viewer mentioned guilt, aligning with one other who actively stated that they placed themselves within the group of waste-producers, while still declaring a level of recycling actions.

Lakoff's (2010) final suggestion for environmental deep framing was to place ACC communications in a frame similar to other movements in American history:

> *"Environmentalism: The natural world is being destroyed and it is a moral imperative to preserve and reconstitute as much of it as possible as soon as possible."* (Lakoff 2010, 80)

Seen in the light of the viewers, the ironic use of the phrase, and the stark photographic representation of object in visual artefact 1: *Keep Buying Shit* makes this artefact an ideal case of values-based framing. The quality that this artefact does not share with Lakoff's frame proposal is that the piece portrays a negative message and image. With western

middle class audiences, the cognitive elaboration required to understand the trope, and subsequent amusement achieved with its ironic stance may contribute to a positive reaction to this visual artefact.

Visual artefact 1: *Keep Buying Shit* also provides opportunity to examine the self-transcendent and self-enhancing values as proposed by Corner and Randall (2011), who also propose the use of values-based framing. The artefact appeals to self-transcendent values by displaying the physical outcomes of actions, and inferring an impact on populations other than the self. Self-enhancing values were appealed to by using the term "Buying", potentially inferring that savings could be made and an indirect contribution to a self-transcending action might result.

Viewer L4, undecided on ACC, discussed his own position of recycling awareness, and how others were engaged in self-enhancing activity, again reinforcing the perception of out-group responsibility.

> *"Not that the picture itself is irritating me, but the thought of people needlessly just buying loads of stuff that they don't need that then ends up getting thrown away. I was reading an article the other day about the new, massive super mall in Dubai. It's currently the most visited place on earth. And it was just all about people buying stuff to be able to show off to other people."*—viewer L4, referring to visual artefact 1: *Keep Buying Shit*

No viewers made indications of any type of financial saving, all discussed the artefact within the frame of self-transcending values. Viewer B6, who did not agree with ACC, also had a positive reaction to the message, like the other viewers, finding his values and experiences aligned with those put forward in the message.

The responses of viewers revealed a different decoding of the visual artefacts according to theories surrounding different types of frames. While both the producers and the researcher classed visual artefact 1: *Keep Buying Shit* as a type of tragic apocalyptic rhetoric, viewers understood and experienced it as more of a values-based appeal, with a direct action instruction that implied an open-ended telos. Their overall lack of hope, inspired by this artefact, did not translate the expected inability to alter the telos. Instead, and despite strong negative emotion, viewers reported a higher ability to make a contribution than in the other artefacts. Visual artefact 3: *The Consensus Project,* also an appeal to values, was successful for the one member of the study who fell within its primary target audience, in particular by appealing through a careful professional code. The producer indicated that this visual artefact has a far wider audience, however, and the response from other viewers was not as successful from a rhetorical framing perspective.

## 6.6 Conclusion

The chapter has discussed the relationships between the human actors and the visual artefact actors in the study. Key contributions are made to the fields of graphic design, and sociology through the cultural approach to the visual communication of anthropogenic climate change (ACC). Enquiries into both the human and the ad system, and an examination of the relationships between these two systems results in several key findings, particularly due the study's interpretation of the site of production as graphic designers, as opposed to existing studies which instead focus on communication strategists and department heads.

The first major contribution is through the examination of the graphic design process, rather than the borrowing of design process from similar disciplines. Firstly, understanding that graphic design aims to generate and materialise ideas (Harland 2015) in order to evoke certain actions or beliefs in viewers, rather than build objects or products, progresses current understanding from product and consumer-based market ideology. Isolating the graphic design process to a binary relationship between creative and non-creative states opens pathways for new debate in the graphic design domain surrounding academic theory, creative practice and the education of new designers.

The second major contribution is the new typology of signifier elements, and the subsequent coding methodology that allows for semiotic and rhetorical discussion of whole visual artefacts. Building theory for new enquiry into visual communication, this typology classifies artefacts as a system of signifiers, with subsets that allow for types of imagery that transcend the existing assumption of image existing merely as representation of object, or as a general type of signifier that can be reduced to a numerical proportion of the artefact. As well, elements usually isolated in existing studies, such as colour, and those not often examined such as typography, can be included within the system of influencing signifiers for analysis. Coding visual artefacts according to this typology allowed for deeper investigation into viewer engagement, and the visual element at which viewers transcend the engagement stages (Williamson 1978) could be isolated and analysed further. These "Point of Conversion" results revealed that emotion is a key driver for engaging viewers, aligning with McQuarrie and Mick's 2003 finding that emotive tropes were more engaging than less emotive schemes. This new methodology for sociological enquiry into the visual language employed by graphic designers is the first major contribution to knowledge.

The third major finding is that habitus contributes directly at both sites of production and reception, and that, when designers attempt to align the aesthetic style and message of their visual artefacts, using aesthetic style translators, with the habitus and dispositions of audiences (Tonkinwise (2011b), unintended consequences can occur. Understanding the systems of principles that viewers apply to decode these visual artefacts may contribute to a better alignment with viewer habitus.

Finally, the fourth major finding is that aesthetic style has a major influence on production and reception of ACC visual communication. While much of the existing theory in communication of this issue focuses on framing, rhetoric and other high level strategies, this study examined the visual translation between these strategies and intended audiences, and found that without consideration of aesthetic style, any communication strategy can be rendered ineffective. Three key areas were highlighted:

1. Aesthetic style (along with the message rhetoric) is key to sociological investigation of ACC communication. Two examples of where aesthetic style altered current thinking are:

   a) Aesthetic style has a key role in the primary stage of viewer reception, where the viewers makes the initial choice of whether or not to examine the artefact, before communication engagement strategies can have any influence.

   b) ACC communication types found to be most successful in other studies did not return similar results in this study which investigated aesthetically styled artefacts.

2. A combination of habitus and aesthetic style has been shown to directly affect viewers' uptake of messages, as shown by the hegemonic or counter-hegemonic encoding and decoding of visual artefacts.

3. Photographic imagery can engage the viewer at all stages of the reception process, evoking trust, knowledge and belief. The polysemic nature of imagery may also trigger unintended decoding for support imagery that is not accompanied by explanatory text.

These major contributions, and their implications will be concluded in the following chapter.

# Chapter 7: Conclusions

## 7.1 Conclusion

The aim of this research study was to investigate the influence of graphic design and graphic designers on the communication of ACC messages. A review of the literature from the graphic design, communication and other ACC related fields exposed several gaps in the literature, that led to the isolation of the three research questions. The questions centred around three key sites where the phenomenon of ACC visual communication occurs— the visual artefact, its production, and its reception—and investigation into the relationships between the actors at each site. A key point of departure from the literature was to consider the influence of the aesthetic style of whole visual artefacts on reception of the ACC message, a perspective from within the field of graphic design, rather than from outside it. This perspective led to new methodologies and new findings that make a significant contribution to sociological enquiry and the fields of graphic design, communication (particularly science communication) and ACC-related domains.

The chapter commences with a summary of how a graphic design perspective influenced the four major contributions. The first of these contributions is a new methodology for the study of visual artefacts. The benefits of this methodology are highlighted by discussion of the exact aesthetic elements at which changes in viewer engagement with the visual artefact occurred. The second contribution, the influence of aesthetic style on the experience of the visual artefact by the human viewer follows, Thirdly, how aesthetic style aligns with habitus in the viewer experience is summarised, and then discussion moves to the fourth contribution: the outcomes for graphic design made by the new logic map of visual artefact production. Finally, the research is concluded in line with the framing types that drove visual artefact selection, and have divided current literature. This discussion of framing leads to a summary of the limitations of the research methodology, and recommendations for further study.

## 7.2 A "from Graphic Design" perspective

As the literature review showed, there was little in the way of research from the graphic design field outside technical understanding. The discipline has at times attempted to distance itself from the perception that it is concerned with only shallow styling, and searched for academic recognition by borrowing from other disciplines. Therefore this study makes an important contribution to the graphic design research field at the outset. As Richard Buchanan stated, research "from graphic design", rather than research that is "about graphic design" using techniques and theories borrowed from other fields can provide new perspectives and understandings of the visual artefacts making cultural contributions. While much of what Buchanan was referring to was using design itself as methodology,

this study instead focused on artefacts from the perspective of graphic designers, raising awareness of, and providing frameworks for, studies that consider aesthetic style as a visual type of language.

While rhetoric and semiotics are borrowed from other disciplines, they were developed and progressed in this study by adopting a "from graphic design" visual language perspective. As Lynda Walsh (2015) explained, most approaches to visual rhetoric enquiry into climate change visuals follow one of three paths: classical visual rhetorics, semiotic visual rhetorics, and critical visual rhetorics; often combining one or more of these approaches. While these approaches reveal much about how visual arguments are received in terms of polity or society, focus is on the argument or argument type rather than the visual language elements that serve to translate rhetorical devices. This study would be closest to a semiotic visual rhetoric perspective, however, it embraced the aesthetic as an equal partner to text in terms of the communication tools deployed by designers (Bartmanski 2015). Further, problematising the visual artefact as an object existing in its own right, rather than as a mere representation of an object under study allowed for phenomenological, "individual experience" investigation into the relationships between a real-world artefact and its related human actors.

Visual rhetoric from a semiotic perspective, embracing aesthetic style (signifiers) *as well as* message text (signified) allowed for all parts of the graphic designer's language found in these translatory visual artefacts to be examined and better understood in terms of how viewers relate. Viewers did not simply read the message or make meaning from the arguments signified by the visual artefacts, they also made meaning from the aesthetic style of the arguments, as seen in the previous chapter which outlined the professional code that viewers used to decode the visual artefacts. Aesthetic style also played a key role in the initial judgement about whether to engage with visuals at all. While these concepts are well-indicated in the literature, there has never been a methodology that allows us to pinpoint how this aesthetic style works in a visual sense.

## 7.3 A new methodology for visual communication analysis

The three selected visual communication artefacts displayed a good range of aesthetic style types, providing a sound base for the creation of the "Typology of signifiers in visual artefacts" (Table 5-1) using a new visual coding system. This typology and system of coding offered a way to both analyse the artefact in terms of levels of abstraction—a particularly key ideal considering the resulting viewer responses to more representative imagery—and to provide a language for describing these signifiers in further artefact reception studies. Each visual artefact was dissected to individual types of signifiers, and mapped accordingly. In this way, discussion directed at the visual artefact could be analysed using a more complete aesthetic and rhetorical understanding of each element, as well as its relationship to the whole visual

artefact. In previous examinations of visual rhetoric (eg. Williamson 1978, McQuarrie and Mick 2003), elements found within the artefacts and what they signified were discussed, but only in terms of representation of object or type of rhetoric, rather than also detailing the aesthetic style of the representation itself.

A good example of how this methodology contributes to understanding of the relationships between human actors and visual artefact actors is the point of conversion at which viewer discussion turned from simple description of signifiers, to their personal relationship with the signified. This way of pinpointing the visual elements at which the viewer moved from initial, viewing stages of interaction to desired stages of engagement resulted in several key findings that the next section will address.

## 7.4 Visual elements that trigger changes in engagement

The new coding methodology provided results detailing the isolated elements that the viewers were discussing when they moved to a deeper level of engagement. Comparing these point of conversion elements allowed for immediate visual recognition of patterns. For visual artefact 2: *Apology From the Future,* the 'photographic representation of object' type signifier—the world leaders including President Barack Obama and Chancellor Angela Merkel—was the most common point of conversion. This particular turning point is important in reception of messages, and using the new language found in the typology to describe this element as a signifier type unlocked a way of discussing their importance as persuasive aesthetic elements. Discussion could then progress to aesthetic style particulars of that signifier, such as the artificial ageing of the 'object'.

Another way this language was extremely useful was with multiple visual artefact examples. Visual artefact 2 has three alternative examples, and one viewer referred to many occurrences of different visual elements across the three artefacts. These different elements were in fact the same signifier type, and grouping these elements in this way allowed for a more rigorous discussion of what was this viewer's point of conversion to a higher level of engagement. The signifier type was recognised and discussed as the important factor, rather than inconsistent or potentially confusing discussion of the different visual elements. This typology and the methodology of visual coding form an important first step to a new visual language of graphic design artefacts. In future studies, this typology could (and should) be expanded in relation to a greater number of visual artefacts, particularly the creation of new sub-divisions of types of illustration. This study focused only on the vector-based style of illustration found in the selected artefacts. However, many different types are likely to have an influence on viewer perception, such as pencil illustrations of both a skilled and an unskilled nature, highly technical colour illustrations ranging from representative to abstract, and so on.

A further step forward might be a less intensive and more extensive typology of aesthetic styles as a key contribution to visual rhetoric. Rather than borrow from linguistic rhetorical classifications, a new typology based on aesthetic style as persuasive argument could be a major contribution to visual rhetorical studies. As Bartmanski (2015) proposes, understanding texts *as well as* aesthetics is key to advancement in the social sciences. This typology may prove difficult, however, as aesthetic styles and the types of viewer decodings derived from them are potentially as fluid and difficult to define as is the mix of instinctive flow, practice and judgement states in which these styles are created by designers. Importantly, ongoing research should define how best to use aesthetic style as a rhetorical device for persuasive argument. Bartmanski's point is critical in that the message (text) and the aesthetic style should be in alignment, lest the message be perceived as deceitful for certain audiences.

## 7.5 The key influence of aesthetic style

A key finding in the reception of visual communication artefacts was that aesthetic style has a major influence on the uptake of messages. Tonkinwise introduced the theory that design is an exercise in Bourdieusian enquiry, whereby designers attempt to translate messages, using taste and style, to visually appeal to a certain type of habitus. This study, and the methodology it used showed that encoding and decoding of visual artefacts are not as closely aligned as the producers intended. Comparisons between the visual representation of the producers' intended order of viewing of elements (encoding), compared to the order in which the viewers actually decoded the artefacts, revealed a lack of consistency between the two types of agent in the study. This indicates that what may be accepted norms of visual rhetoric from an aesthetic perspective in the habitus of the designer, may not be received with the same message in a non-designer viewer's habitus

In some instances, viewers ignored messages entirely if the aesthetic style did not appeal, or if it interfered with legibility. In others, the aesthetic style, intended to be decorative, was instead taken as an indication of the authority behind the message, or as a visual type of blame-casting. This is important to all fields with a stake in ACC communication because without due consideration of aesthetic style, there is little point to careful construction of ACC messages. As Bartmanski (2015) discusses, aesthetic style should be equivalent to the message (text) for sociological enquiry. A step further from this proposal is that the aesthetic style of this type of image is not created purely for sensate pleasure, but as a rhetorical device equal to textual & linguistic forms such as parody and metaphor.

Problematising the visual artefact from an aesthetic style perspective, rather than as a mere representation of an object allowed for a more complex phenomenological investigation, revealing the influence of aesthetic style on the reception of messages. This is best demonstrated by discussing a recent study by van der Linden et. al (2015) which found that pie graphs were the most successful method (of the three examined) for disseminating

the message of 97% consensus on ACC within the community of climate scientists. This message has been shown in a previous study to alter the opinions of people who do not subscribe to ACC, and who also hold a market-based worldview (Lewandowsky, Gignac and Vaughan 2012). These findings make a major contribution to ACC communication, yet the aesthetic style of these messages was not part of either of the studies. The van der Linden et. al (2015) study investigated isolated elements with regard to how different types of graphic elements can represent a concept within a controlled experimental site. The instrument was an online survey, within a university science setting—the most trusted source for ACC information (Leviston et. al 2014). Each of the three options also included a scientific logo which furthered this trusted setting. No discussion was made of other aesthetic considerations, such as colour, the typeface, or in what visual context the pie graph was presented. This PhD study makes important contributions to this particular group of studies by exposing how a whole visual artefact that translated this same message in the recommended visual format resulted in varied responses in audience members. Two examples are highlighted, one from each of the two key studies.

Firstly, Lewandowsky, Gignac and Vaughan (2012) found that consensus appeals can be more successful if related to a grassroots position, as opposed to an authority. Visual Artefact 3: *The Consensus Project* (a real world example of the consensus appeal found in these studies) had no representations of authority such as a recognisable authority logo, and therefore it could be assumed—without consideration of aesthetic style—that this would be a successful translation of the message. This PhD study instead found that the lack of signification of authority contributed to a lack of trust of the artefact and its message. Further, and most importantly, the aesthetic style was decoded as "corporate", or belonging to the hegemony, and contributed to the perception of the position of the message that was opposite to the grassroots position it more closely represents.

Secondly, van der Linden et. al (2015) suggested the pie graph as the most successful of the three types of message delivery they examined. Visual Artefact 3: *The Consensus Project* contained a pie graph displaying the statistics under investigation. Considering this graph as part of a larger, whole visual artefact containing several other types of signifier resulted in a more confused response to the 97% consensus message. A signifier intended as support decoration instead influenced members who positioned across ACC subscription spectrum. The participant—representative of the target audience to which this particular message is aimed—did experience a level of attitude change once confronted by the graph. However the artefact was the least preferred of the three artefacts with which he was presented, and in a real-world viewing he may not have read as far as the graph at all. The participant also discussed the decorative support signifier in a negative light, and gave it as much weight as the rhetorical signifier, indicating the importance of the style of all signifiers contributing to a distinct visual language within the whole artefact. For another participant—who subscribed to ACC and therefore was not the intended audience—the aesthetic style, including the

influence of support signifiers, resulted in misinterpretation of the authority behind the message. This interpretation resulted in complete mistrust of the carefully-worded and visually represented 97% consensus message altogether. This also shows how important alignment of aesthetic style with the habitus of viewers was to the reception of ACC messages.

## 7.6 Habitus and decoding visual artefacts

The viewers decoded visual communication artefacts through the visual language of aesthetic style. How they made meaning from this combination of message and style was to apply a system of principles (Bourdieu 1992) and make judgements on the authority, truth and appeal of the artefacts according to those principles. An example discussed in the previous section is that viewers used visual cues to decode each visual artefact as aligned with a hegemonic (eg. corporate) or counter-hegemonic (eg grassroots) worldview. The judgement of belief, or truth of message was then made according to how that aligned with their individual habitus. For example, some viewers who aligned with a counter-hegemonic worldview did not trust visual artefacts that they perceived as originating from the hegemony, despite the compelling scientific evidence and lack of any other hegemonic indicator. The viewer who did align with the hegemony reacted favourably to the same visual artefact (although he preferred it the least out of the three artefacts). This suggests that better understandings of these systems of dispositions deployed by viewers may assist graphic designers in using the language of aesthetic style to better align with the habitus of their target audiences. As well as reception of aesthetically-styled visual artefacts, the production of these artefacts also uncovered findings that have implications for the fields of communication and graphic design.

## 7.7 Implications of new graphic design process map

As discussed in the previous chapter, designers attempt to communicate messages to their audiences through the language of aesthetic style. An analysis of how this practice occurs revealed specific details of the graphic design process that are not present in more general design process studies. A better understanding of how these aesthetic styles are generated revealed a different approach to the more rational process of public communication strategy, which is based more on empirical research and a wealth of academic thought (Regniez and Custead 2011, Lester and Cottle 2009).

Analysis of descriptions the three designers gave for their creative development in this study resulted in a logic map of their graphic design process. Two types of state emerged: creative and non-creative states. Within the creative state group were examples of "flow" (Csikszentmihaly 1996), where the designer became absorbed in an almost automatic, sub-conscious creative state, and a more conscious practice, where experience and a more

rational line of thinking dictated the creation of the visual artefacts. The non-creative state encompassed the critical judgements made by the designer, the design lecturer (in the case of the student designer), associates and clients. This state served as a retardant to the various creative states, and this binary relationship is key to discussion within the field of graphic design. Where some of the field preference creativity, this process highlights the importance of knowing when to stop creating and consider the artefact or concept complete.

Both states were influenced by habitus, and again a more extensive investigation of the processes employed by designers in the creation of ACC artefacts will further this line of enquiry.  Where the literature calls for certain types of communication strategy to be used, and critique is made by authors such as Tonkinwise on the types of ACC communication that have been produced under the dated and single-issue theories surrounding social marketing, a key gap was the translation of these theories into visual messages. While the Typology of Signifiers in Visual Artefacts (Table 5-1) reveals qualities of these visual artefacts and provides a language for discussion, investigation into how they were produced revealed a variety of approaches that resulted in artefacts that may not have deliberately aligned with one type of framing or another. This is important, because as the findings explained, the aesthetic style of ACC visual artefacts can directly influence the reception of carefully-considered communication strategies. This chapter will now summarise study that surrounded the types of rhetorical framing that were a principal driver for selection of the visual communication artefacts.

## 7.8 Types of frames for ACC communication

Current thinking was divided around two main approaches to message strategy, contributing to the theoretical selection of the artefacts in the study. These were apocalyptic rhetoric, a more emotional fear or threat appeal, and values-based rhetoric, intended to provoke a more rational response. The study returned interesting results with emotional responses, where negative emotional reactions did not necessarily lead to a "turning away" from an unpleasant artefact. Despite many viewers describing negative emotions such as disgust, sadness, and anger, in response to visual artefact 1: *Keep Buying Shit* (the artefact selected as representative of tragic apocalyptic rhetoric), it was the most-preferred artefact by those viewers, and overall. The aesthetic style, perceived to be more emotional—and therefore a more trustworthy "grassroots", or counter-hegemonic message—may have influenced this preference and confidence in ability to make change.

The key study for apocalyptic rhetoric (Foust and Murphy 2009) found that within this approach, a comic apocalyptic frame was likely to be more successful than a tragic apocalyptic frame. One of the ways to discern the difference between the two types was 'telos', or the conceptual end-state of the message. Where comic apocalyptic rhetoric has an open-ended, undefined future, tragic apocalyptic rhetoric portrays a more closed, defined

ending. This PhD study found that this result is not always the case, as the aesthetic style of the visual artefacts that are translating this message can have a much more powerful effect on viewer perception than message alone. There was also a much more confident outlook to the viewers' ability to make useful individual contributions, despite having a lack of hope due to a tragic apocalyptic telos. Similar to the audience members preferring the more shocking visual artefact 1: *Keep Buying Shit*, the viewers had a far more robust reaction to their negative emotions than current thinking might suggest. A factor that may contribute to this robust reaction is the newer conditions of the human psyche that are resulting from the changes in technology and social exchanges.

Given the seemingly exponential pace of technological advancement, updated studies on reception of any type of message are critical to understanding how to communicate. In what Baudrillard termed a 'hyperreal' world, where everything we have desired is possible, and with continual confrontation by mediatised experiences, including emotion-provoking messages (Harden 2011), discussion in literature show that the human psyche is adapting at a related pace. Studies on the reception of ACC messages may date quickly in this light. For example, our empathy is declining, there is a disconnect with reality, and the present takes precedence over the past or the future (Konrath, O'Brien and Hsing 2011, Greenfield 2008, Menzies 2005). The findings in Figure 5-53, which show the spread between a lack of hope, and the belief in the the individual respondent's ability to make a difference to the telos seen in visual artefact 1: *Keep Buying Shit,* indicated an ability to cope with cognitive dissonance. Similarly, the preference of strong negative emotions triggered by an unpleasant image—with less legible text in a colour that most viewers specifically referred to negatively—was preferred by five out of the nine participants. A sixth participant preferred this artefact once the message was read, and made comment about the passionate, emotional appeal in a positive light. These findings differ to those in the literature review, which pointed to the more values-based appeals in order to avoid both cognitive dissonance, and other issues such as emotional numbness. As Turkle (2009) explains, in a hyperreal existence, often the simulation of reality fosters individual connection with the real. Approaches from a hyperreal, emotion-provoking perspective may prove fruitful in this fluid, rapidly changing context of society.

In contrast, visual artefact 3: *The Consensus Project* did not trigger much in the way of emotional response. In fact, some viewers found it "boring" because of the lack of any type of emotional claim, and were not engaged to delve further into the information. This more rational appeal also led to interpretation of the artefact as being a hegemonic message, and therefore a less trustworthy authority on ACC issues. Several viewers referred to the lack of photographic images in visual artefact 3: *The Consensus Project*, and discussed the photographic image as provoking a more emotional response than the vector-based illustrations found in that artefact. In discussion of the other artefacts, participants claimed the photographic image to be depicting reality, and the truth of the message portrayed

using the 'photographic representation of object' type of signifier was not doubted. This same type of signifier also provided emotional appeal in visual artefact 2: *Apology From the Future,* which was a realistic image of Barack Obama that had been digitally manipulated. A study from 2003 suggested that photography is less trusted than in the twentieth century (Malkewitz, Wright and Friestad 2003). However in the light of simulation and hyperreal existence, and given the findings from this study, photographic images depicting shocking, or surprising objects can provoke positive attitudes towards ACC. While more extensive studies are needed to further theory in this area, aesthetic style, as well as the changing contexts of society, are key to better understanding the phenomenon of ACC visual communication.

## 7.9 Limitations

Several limitations were present in the study, centering around the bias of the researcher, the understanding of the case of ACC visual communication, the sampling methods and finally the reconstruction of the audience experience itself.

The main bias of the researcher stems from a practising professional career in the field of graphic design. Assumptions and understandings were based on this experience, which Harland described in 2011 as *"...preferences and prejudices—those of someone who for two decades was concerned with the 'making' process in graphic design."* (Harland 2011, 23). Another limitation of the researcher is the inability to understand languages other than English, thus keeping the focus to a particularly anglophile perspective. As the study was limited to English language participants, the produced and received visual language of the three visual artefacts was also understood from a western perspective. Similar studies of work produced in countries such as Brazil, France, Germany and many others would provide rich complements to the results of the current study.

This bias was also present in the understanding of what constitutes a case of ACC visual communication. Other actors excluded in the case were clients and viewers outside the target audience and selection criteria. While these actors make important contributions, the scope of the PhD study was restricted to the three main actors in order to establish theory, upon which further work can be based. This is also applicable to the number of instances of the case of ACC communication that provided data for the study. Future work could embark upon a larger study, provided copyright permission can be obtained to ensure integrity of the aesthetic style investigation.

As Stephen Linder (2006) pointed out, sampling for media using an online archive is not representative to a population of all ACC visual communication visuals. This study therefore approached selection with the somewhat vain assumption of researcher as domain expert, but validated this selection with two types of method. Firstly, the visual artefacts were selected according to the theories that sensitised the study, and secondly, the data from the two sites of human actors were used to compare and validate the researcher assumptions.

While sampling was pinned to theory in each case, limitations could be improved upon in future studies. The objective of the sampling was to obtain artefacts from each of three sites: Australia, United Kingdom, and North America as the three main locations of English language relevant to the study. Selection criteria restricted the number of appropriate cases, most particularly the copyright permission criterion and travel times of the researcher, resulting in two instances of case from North America, and one joint project between United Kingdom and an Australia-based designer. This ensured at least some variation, but did not allow for a complete location comparison. Similarly, the timing of travel associated with the study did not allow for investigation with a North American audience, but a fortunate nearby conference did allow for the inclusion of participants from the United Kingdom. The sampling of middle class professionals was useful in initiating this type of research, but was limiting in terms of a broad sample from the community. Future studies may progress the findings in this study by an extensive sampling of populations, rather than sampling according to theory.

Finally, the study constructed instances of case in a way that merged the ideas of Bourdieu and Husserl in a phenomenological approach. However, Cole discusses Baudrillard's idea that research which is ignorant of simulation inherent in its methodology cannot assess reality (Cole 2010). The reconstructed instance of case is a simulation of how these artefacts are experienced in reality, not the truth of how they are experienced in a real world situation. While it was proposed that this case simulation was the best method with which to elicit intensive responses from the audience members, it must be acknowledged that in this light, these results relate only to the simulation, not the way they are experienced in a real world situation. The findings drawn from this simulation are interpretive, in line methodology, as opposed to a factual rendering.

## 7.10 Recommendations

Extensive study from the author's Masters degree research formed the motivation for the intensive type of research found in this PhD study. This seems to suggest a methodological pattern, and it is recommended that further ACC or graphic design studies might use these results as a basis for research with a more extensive approach. Suggested further study includes:

» More extensive testing of hegemonic style elements and counter-hegemonic style elements within ACC visual artefacts as perceived by viewers

» Further testing of the "97% consensus" message to add to the key aesthetic style perspective of this study's results in relation to Lewandowsky, Gignac and Vaughan (2012) and van der Linden et al (2014). Two key areas would suit the next step of study:

- Extensive testing of different styles of "97% consensus" pie graphs, falling within the hegemonic and counter-hegemonic codes on a population sample.

- Re-testing the extensive van der Linden et al (2014) studies with a visual aesthetic applied to each type of message translation may also provide rich data, with comparison between visual metaphor, pie graphs and plain messages designed as visual artefacts.

» Addition to the typology of visual signifiers (Table 5-1), in particular adding sub-sections for types of illustration such as pencil drawings, and their displayed levels of expertise from expert to amateur.

» Potential for the continued building of theory towards a typology of aesthetic style, if not defined visually due to the fluctuations of the use and perceptions of those style, then a way to describe them in more typological detail than the over-arching hegemonic and counter-hegemonic code.

» Extensive investigation into designer process using the three types of creative process stages found in this study: creative flow state, conscious practice, and judgement.

» Using technology such as eye tracking software to further studies into the point of reception of elements in visual artefacts may yield interesting results, for example if compared to the order of discussion.

## 7.11 Closing remarks

This PhD study has shown the influential role of aesthetic style—and those graphic designers who create it—on translations of framed messages into visual communication. Given the rapidly increasing role of the visual in society, consideration of graphic design's visual language will aid all fields in progressing from more abstract, message-based theory and strategy, and ensure a better deployment of carefully-framed messages. As a gateway language for these strategic messages, with a more primary, instinctive role in attraction and engagement, a more complete understanding of aesthetic style in relation to ACC, and other related complex scientific messages is crucial. In a hyperreal, present-focused social context, the aesthetic styling of anthropogenic climate change may be the only way that the generation best positioned to effect meaningful change can experience this issue.

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## Appendix A Stated emotional responses by viewers to visual artefacts

Example question:
*Does it make you feel any emotions you can describe?*
*Does it make you feel any emotions you can describe, like angry, hopeful, irritated, happy? (L4, B7 and B8 only)*

| Viewer | **Stated emotional responses to visual artefact 1:** *Keep Buying Shit* |
|---|---|
| L1 | I think sad, really. And frustrated. |
| L2 | It kind of makes me laugh. It's a bit humorous. But it also makes me feel a bit disgusted. |
| | No. It's probably a mix of humour and disgust. |
| L3 | I think it makes you feel really uncomfortable, because on a daily basis you actually don't realise that you're supporting the environment in a negative way. |
| | I think it's very kind of disturbing and irritating, actually. [yellow text colour] |
| L4 | I think probably irritated, to be honest. Not that the picture itself is irritating me, but the thought of people needlessly just buying loads of stuff that they don't need that then ends up getting thrown away |
| L5 | There's a bit of humour. A bit of anger that me, but largely I'd say a lot of other people in the world, do this a lot. |
| B6 | I suppose it's that emotive part to it, which, for me, the whole climate change, should be based on facts and actions that are going to be taken. And I personally think the emotive side to it is to try and win people to different camps, whether the camp's right or wrong or different. |
| B7 | Oh, angry, definitely. |
| | I do think there is a lot of waste. |
| | I suppose just reinforces that I do think there is excessive use in first world countries. One thing that I talk about in pubs and wherever we're talking about things like this is that massive island of waste out in the Pacific, that... |
| B8 | Yeah. It makes me feel annoyed and frustrated. Frustrated that, in a couple of ways I suppose. Frustrated that I think there's probably a lazy degree of laziness, in a certain amount of people who don't even consider that this is having an impact or doing anything to stop it. And then, some degree, that I'm part of that as well. I mean, I make an effort not to be, but to some degree I still am. |
| B9 | It makes me feel a bit wasteful, doesn't it? |
| | It makes you feel a little bit guilty. |

| Viewer | **Stated emotional responses to visual artefact 2:** *Apology from the Future* |
|---|---|
| L1 | Disappointment in our political system as an ongoing thing. Yeah, just disappointment. And sadness to a degree, because it's a shame. |
| L2 | It makes me kind of annoyed. Not at the advert, but at the world leaders. I think it's a pretty stark statement of the truth. It makes me kind of annoyed at the inaction of the people who are meant to be leading the movement. |
| L3 | It actually makes me feel sad, because you're voting for these leaders and they offer you quite a lot. They promise you quite a lot of things. |
| L4 | Okay, so how does it make me feel? I'm not sure. Because now that I look at it from the other angle in terms of he didn't say that in 2009, they're predicting what he might say in 2020. I wouldn't say it specifically makes me want to act now. Because I feel like I kind of believe what these people are saying when they've done their previous talks about what they're trying to do about it. And I don't think they would allow the situation to have gotten that bad that they're completely – I don't know. It's a weird one. I think it's because obviously I was looking at it from the other aspect and now it's completely changed. |
| | I think because they're trying to predict the future, I almost don't like that. I think it's a little bit unfair on the politician to have put that. |
| | Now I look at it like that, I don't really like it that much. I think it's quite unfair. |
| | I guess it's kind of a small degree of anger that people think they can get their message across in this way and blame other people rather than blaming the much more populous, general public. |
| L5 | Yeah. What would be the emotion? There's a bit of sort of sadness there. Regret. And it's all a bit kind of not morbid, but a little bit – I don't mean that derogatory. It just gives a feeling of sort of, I don't know, not listlessness. But that kind of. |

| | |
|---|---|
| B6 | No. I suppose it's that emotive part to it, which, for me, the whole climate change, should be based on facts and actions that are going to be taken. And I personally think the emotive side to it is to try and win people to different camps, whether the camp's right or wrong or different. |
| | Personally, it's anger towards governments for failing to actually do anything, even to now I don't think governments have done anything. But, I think that's also because I want to see the collective change. It's not just one country, I think also there shouldn't be excuses made for different countries, so, you know, if you're a developing nation there shouldn't be excuses there. Ok, they're exempted from change because there's an awful lot of foreign investment there, you know. You can't say that our clothes aren't being made, you know, purely to make profits for companies but they're being made in third world countries, but you can't sort of exempt them and say, "well, you don't have to abide by these, things that we want to do because you're developing." And I think there could be far more political pressure on, you know, the likes of China. The imagery is that they're spewing out fumes with, you know, coal-fired power stations, but then again, we're still using it here. So, who are we to say, "no, don't do that" if we're doing it ourselves. |
| B7 | To be honest, it does irritate me because I don't think anyone can do something about it. I think we can have an effect on what we do but I still don't think there is a catastrophic climate change that we could have prevented. |
| B8 | Yeah, it makes you feel disappointed that you can see that happening in the future. Makes me feel annoyed, sort of reminds me that they're talking about now, and you know that nothing's being done now, so yeah, makes me feel quite annoyed. Makes me feel quite annoyed that these people have the power to make change, greater than anyone. I'm not saying they're wholly and solely to blame but they have the ability to make more change than anyone. I don't know they have the best motives or best intentions at heart. |
| B9 | I think, at a glance, I'd be looking to see what he's sorry about, the way it says "I'm sorry", so you'd think "OK, what's he actually talking about". Probably not as emotive as the last one of the rubbish dump. The other thing that is interesting is the stance, the way that they actually show his face, it's almost a little bit distant. It's not until you look at it quite closely you realise that they've actually aged him. |
| | But, it doesn't sort of evoke any kind of emotion... |

| Viewer | **Stated emotional responses to visual artefact 3:** *The Consensus Project* |
|---|---|
| L1 | No, not really. There's no engagement with it. The second page is more interesting, but there's no emotive kind of response to it, which I suppose is how I roll. |
| L2 | It makes me feel bored. It's just a bit boring. |
| L3 | It doesn't send that strong a message to me. |
| L4 | Although I said it didn't really resonate as much, when you look at that, it is quite worrying. I'd say the trend is quite worrying from the level it was going up to obviously how it's going up in the last couple of years before 2011. |
| L5 | Yeah. A little bit angry on behalf of the environment, type thing. |
| B6 | No, not really, not as much as the other two. The other two are more emotion provoking I think, whereas this is more of a "I'm feeling, what sort of information am I going to get out of this?" |
| B7 | Not really. |
| B8 | No, but I think that's because I've gone for the infographic. If I'd gone for the personal testimony, that might do more. |
| B9 | Oh, the only thing about the graph is the escalation part, that part you think well, yeah, I'm not sure about the dates, but the escalation part is everything's ramping up and getting progressively worse is ...just something that makes you realise that things are accelerating that way. There's a bit of hope I suppose, when you look at the bottom corner and you know the solutions are within reach, so there's a positive aspect to it as well. It's not all doom and gloom. You know, the red's obviously the global warming, the red, the hot sort of type thing. |

## Appendix B Responses of viewers to questions about who is principal and trust of message

Example question:
*1. Who do you think is talking to you through this message? Who is the authority?*
*2. Do you trust them or the message they are sending you?*

| **Visual artefact 1:** *Keep Buying Shit* | | |
|---|---|---|
| **Viewer** | **Viewer speculation at principal** | **Stated trust of principal and message** |
| L1 | Interestingly, this comes more across as an individual sending it out rather than a corporate message or a government message. I think that's more to do with the style and the directness of it. There's no obvious branding in there. There's no hidden agenda | As I don't know who the authority is, it's difficult to say. |
| L2 | I feel like it would be some kind of grass roots movement. I feel like it would be a charity. I don't feel like this is from a government. If it is I would be very surprised. And I don't think it's coming from any corporations or anything, because they wouldn't tell you to stop buying things.<br>Community. | Yeah. But I do, because it's a picture of – it's not something that's been doctored. It's genuinely a picture of somewhere in the world. You can't argue with that. |
| L3 | Ecologists, environmental activists, organisation with an agenda of environmental issues.<br>Not government.<br>Definitely someone with environmental matters very close to their heart. | Yes |
| L4 | I would say it would be a kind of – this is a weird way to describe it. But kind of like a wacky environmental group. Rather than your local council or something. It's unlikely to come from them. Sort of the guys that you see out on the streets asking you to sign petitions and stuff. | Yeah. I think so. Because they're passionate about it. They just come at it from a different angle than your more regulatory or authority stance. |
| L5 | A pro-environment sort of organisation. I certainly wouldn't say it's government. I wouldn't, but I could kind of imagine it was a different technique they were trying. | I trust that, yeah, because it's obvious what it does. So yes. |
| B6 | Probably a State or Federal Party. | Yeah. |
| B7 | I think it could be an organisation like maybe Greenpeace, or one of the environmental groups, maybe not the Greens, not a political, may not be a mainstream political party but you know some of the environmental groups. | Well, I think the message is right, yeah. I wouldn't say I trust it, but I think they're right. |
| B8 | For this one, I'd say it would be.. it's definitely not government. , I'd say a concerned group, but it doesn't necessarily need to be directly aligned with like Greenpeace or something. This could be something that's got not that direct link in a sense. | No. And that's because who is this? |
| B9 | Who's delivering that, yeah. Oh, the fact that they've put *Keep Buying Shit*, probably it's not gonna be government. It'd be like a Green activist type ad, I'm not saying particularly Greenpeace, but it would be a Green orientated activist Get Up, or whatever they're called, something along those lines. | I do trust that message, yeah. I think it's pretty blunt, it's pretty frank. It's got a nice little punch, it's got a nice little pun about the seagulls, yeah. It's good, nice message. |

Example question:
*1. Who do you think is talking to you through this message? Who is the authority?*
*2. Do you trust them or the message they are sending you?*

| **Visual artefact 2:** *Apology from the Future* | | |
|---|---|---|
| **Viewer** | **Viewer speculation at principal** | **Stated trust of principal and message** |
| L1 | Whereas this one, it's obvious. Greenpeace have got their name in it. They've obviously got a vested interest, but they're being more open and honest. | Again, it's fairly sort of succinct. It's to the point. So yeah, the message sings more to me than the McDonald's one. [*The Consensus Project*]<br>(In comparison with *The Consensus Project*) Purely because the other one I had no idea who the person or the individual or the company or the presence that was driving it. Whereas this one, it's obvious. Greenpeace have got their name in it. They've obviously got a vested interest, but they're being more open and honest. |
| L2 | It's Greenpeace, isn't it? It's a charity. You can obviously tell it's not come from a government or business source. | Yeah. I feel like it's a statement of fact. That's my opinion, but I don't think they're lying to me. |
| L3 | Well, in theory it should be them. It says that this is Greenpeace, obviously. ... I think it's mostly Greenpeace trying to make a controversial thing, saying, think about your leaders. | I think in this one you do. But I know that some other type of things they have done, I think they go a little bit extremist. Certain things and certain values. I think that you can do it in a more moderate way sometimes, that will get people thinking. |
| L4 | Well, it says Greenpeace on it.<br>But if that wasn't there, I would say it would potentially be like an opposition party. Because they might see it as another way to attack the opposition and take an environmental stance on it rather than something else. | No. Because for me I'd much rather listen to someone who is trying to help and come up with a solution, rather than sort of shift the blame onto someone else. |
| L5 | Do you know, I didn't really think about it. Obviously it's got Greenpeace on it. Yeah. But I honestly didn't think about it. | Absolutely. I trust them – not because of that, but because I know they have the best interests of the world and the environment at heart. So yeah, absolutely. I mean, I could see that – but that's almost like almost not a message to me. That's a message to governments. So it's kind of a bit weird being on a billboard. But I get it. |
| B6 | [Greenpeace] | No. |
| B7 | Well, they'd like you to think it's Greenpeace... but whether that really is, it is Greenpeace or not, I'm not sure.<br>Well, I guess you think Greenpeace are sort of activists and this looks quite corporate as well and they don't give the impression of being in a corporate environment but maybe they are now, that's who they're targeting. Maybe changed from being wild activists and... I mean I remember the whole "Save the Seals" thing back in the sixties. | Well, I guess you think Greenpeace are sort of activists and this looks quite corporate as well and they don't give the impression of being in a corporate environment but maybe they are now, that's who they're targeting. Maybe changed from being wild activists and... I mean I remember the whole "Save the Seals" thing back in the sixties. |
| B8 | It's got Greenpeace all over it. I know that that screams it out to you.<br>I don't know who tick-tick-tick is, but even still I would have thought it was an organisation that... has already got the government sort of clearly in the crosshairs. So it'd be relevant and topical to maybe other campaigns that they were doing. | I trust Greenpeace to an extent. In the eyes of this, yes. but the moment you said do you trust them, the first thing I could think of was, and I hate to use a media term, but The Chuggers, the Charity Muggers collecting on the street. |
| B9 | Again, I would have thought some sort of a Green activist type body, who's really sticking it into Obama for sitting on his hands, or whoever for sitting on their hands. | I believe that message, yeah, even though I suspect that there could be people who are much stronger activists than I am. I'm probably middle of the road, I still align myself with that thought. |

Example question:
*1. Who do you think is talking to you through this message? Who is the authority?*
*2. Do you trust them or the message they are sending you?*

| **Visual artefact 3:** *The Consensus Project* | | |
|---|---|---|
| **Viewer** | **Viewer speculation at principal** | **Stated trust of principal and message** |
| L1 | Well, it does say *The Consensus Project* at the top, but I don't know who they are. Again, I don't know who the people are that are driving that.<br>You see, I'm such a cynic. You shouldn't ask me questions like that.<br>You sit and think, well it could be some political party that's trying to get the message across. There's so many different people. | No. I wouldn't necessarily trust it because there's a lot of statistics in there, there's a lot of information in there. The previous one is very simple. There's no hidden agenda. Whereas this one would appear to possibly have a hidden agenda with regards to who is driving it. Whereas the other one just looked like it was an interested party trying to help. |
| L2 | I feel like it's probably scientists. I feel like it's a group of scientists who have gotten together and are just trying to get people to listen to them. Look at us. We all think the same. | Yeah, I do. Because it's obviously well researched and well referenced. They're not just clutching from things. If you went through this website, I'm sure there's a lot of evidence to support what they're saying. In fact, they are trying to educate you. I'm just bored by it. |
| L3 | I think that this is again an organisation that is directly involved in some sort of project fighting global warming. But I think that this makes you feel like these are the people that kind of helped to get people's awareness and change policies and all those sort of things. Not typical ecologists or something like that. | Yes, I think I do because that has scientific evidence behind it. |
| L4 | Definitely something more formal than the previous one. Some sort of a regulatory body, potentially. I don't know what the *The Consensus Project* is, but.<br>Yeah, I would say some sort of larger governmental-type regulatory body rather than a smaller activist group. | From what I can see directly, not a great deal of trust. Because it's kind of as though there's no people involvement in it. It's difficult to initially see the backing up of that data. It's sort of them saying this is what we think. And I'd want to see some evidence backing up the findings rather than just exactly what you can see there. So maybe not a great deal of trust. |
| L5 | The science community. | Yes, but not fully. |
| B6 | I don't know, it's a bit hard to say there. I don't know, the Greens. No Idea. | In terms of the stats? Yeah, I think they'd be fairly close. |
| B7 | Well, it looks like a corporate website, so it could be a corporation who are trying to justify their position. I mean, it's got the little oil wells down here, so to me that looks like it perhaps put out, could be someone like Texaco or Shell or... It doesn't look like it's a group of Green activists, there's no sort of emotion, and "We're killing everybody", you know. [laughter] | I'd have to really read it and make up my own mind, but when they throw things like 97% makes me a little bit sceptical, because it says of published climate papers. Well, that's just a throwaway line.<br>[comparing while discussing another example]<br>The other one was very vague, you know, 97% of all Climate Change papers, well how many of those have been written. That's just a made up statement really, isn't it?<br>97% and then it adds in tiny little print "as published", what does that mean? I think they throw statistics on everything and people don't know what they are. [laughter] That could be 97% of a hundred people who have been interviewed. |

| | | |
|---|---|---|
| B8 | I don't know<br><br>No second thoughts, but, I'm thinking obviously research-based because it's all, material that's presented, so I wouldn't be surprised if it a group of unis that collectively, there was work happening, to use that old think tank expression. | Trust it to have a look at it, yeah. Because it isn't linked, in that sense that it's showing independence. It's not saying "brought to you by Federal Government, but we've made the website pretty so you don't realise it's us." |
| B9 | Yeah, I would have thought this is some, not sure that it's Government but maybe like a government probably where there's a very statistical type approach, the graphs and the percentages. | When I see something like ninety-seven percent I go, well what is that based on, who's validating that, is it really ninety-seven percent. I'd probably get the impression that there's a majority of papers or science data to back up climate change. I don't know that I'd put my hand on my heart and agree with the numbers there. Generally speaking, I'm on the side of the figures and what they represent, and all the rest of it, it's just the validity of the numbers, I'm not sure what they mean. |

## Appendix C Utterances describing the decoded visual artefacts as dominant coding for all artefacts

| number of utterances | Visual artefact 1: *Keep Buying Shit* | **Visual artefact 2:** *Apology from the Future* | **Visual artefact 3:** *The Consensus Project* |
|---|---|---|---|
| Dominant code | 2 | 13 | 22 |

| Viewer | **Dominant code utterances for visual artefact 1:** *Keep Buying Shit* |
|---|---|
| L2 | Yeah. I think you could put that into even a fashion magazine, and it wouldn't look necessarily out of place.<br>Yeah, like in Vogue. |
| B6 | Probably a State or Federal Party. |

| Viewer | **Dominant code utterances for visual artefact 2:** *Apology from the Future* |
|---|---|
| L3 | The first one with Barack Obama was a bit of a political campaign. |
| L4 | More trendy, yeah. I think. As it's been shown there on that billboard, you can definitely see that being something that would still work today, five years on from where it is. It looks very BBC, like a news story type. And I guess the use of the colour red. |
| | Well, it says Greenpeace on it, but if that wasn't there, I would say it would potentially be like an opposition party. Because they might see it as another way to attack the opposition and take an environmental stance on it rather than something else. |
| L5 | But in the sense that celebrities and famous people are the ones that are looked to. We tend to live in that kind of world. I can understand why that would be more powerful than my face saying government didn't do anything about it. |
| B6 | You know what the colours actually look like, that looks like BHP. |
| B7 | It's a little bit corporate and it looks like they've really enhanced his face, so the focus is on him and then what he says. |
| | Well, they'd like you to think it's Greenpeace, but whether that really is, it is Greenpeace or not, I'm not sure. |
| | Well, I guess you think Greenpeace are sort of activists and this looks quite corporate as well and they don't give the impression of being in a corporate environment but maybe they are now, that's who they're targeting. Maybe changed from being wild activists and... I mean I remember the whole "Save the Seals" thing back in the sixties. |
| B8 | I think it's matter-of-fact. The colours are... it's got enough use of red to sort of, you know, that whole stop, alert, that kind of matches things, but not enough to sort of be, you know, "doomsday". I mean, looking at the three of them, I'd say the first and last with the silver and gold, might appeal more to, you know, commercial, and, you know? Whereas this one I'm thinking is more towards an individual. Whereas, the other ones are a bit corporatey in their look in terms of ... |
| | I suppose that's where, you know, would you say it's "trendy"? Well, it might be trendy for a corporate environment. That's what I was thinking, but not as an individual, no. |
| | But again I think that's more because I see this as being corporate. |
| | I don't know who tick-tick-tick is, but even still I would have thought it was an organisation that's already in the government. Has already got the government sort of clearly in the crosshairs. So it'd be relevant and topical to maybe other campaigns that they were doing. |
| B9 | When you said it was a billboard, the first thing I did think that it does look like something that should go on a billboard. It's probably something you could see in the newspaper as an ad, that type of style. I don't know why I had that in my head, like a billboard or a newspaper, maybe that's just the style that they use, and I don't really understand it. |

Appendix C continued

| Viewer | Dominant code utterances for visual artefact 3: *The Consensus Project* |
|---|---|
| L1 | It's too kind of corporate-y. I know that sounds really stupid. |
| | To me, it's very corporate-y. I don't know. I suppose because I do it day-in, day-out, it's not something that stands out to me. It just looks like work. |
| | You sit and think, well it could be some political party that's trying to get the message across. There's so many different people. |
| | No. I wouldn't necessarily trust it because there's a lot of statistics in there, there's a lot of information in there. The previous one is very simple. There's no hidden agenda. Whereas this one would appear to possibly have a hidden agenda with regards to who is driving it. |
| | No. It's just kind of a cross between McDonald's and Sainsbury's. It's just a bizarre choice of colours. |
| L3 | And the other one looked little bit like from The Economist. |
| | I would expect something like that to be showing in The Economist or Financial Times, something like that. |
| L4 | Definitely something more formal than the previous one. Some sort of a regulatory body, potentially. |
| | Yeah, I would say some sort of larger governmental-type regulatory body rather than a smaller activist group. |
| B6 | The other two are more emotion provoking I think, whereas this is more of a "I'm feeling, what sort of information am I going to get out of this?" |
| | It's like a Powerpoint presentation, too much information on it. |
| | I don't know. It seems to be more for a formal presentation as opposed to an advert or something to get your attention. |
| B7 | The message is better on that than the other one that was just like statistics and ninety-seven percent and... Yeah, no real content. |
| | I mean Climate Change to me brings vision of pollution in third world countries, and weather changes, so it doesn't really indicate anything like that. It doesn't indicate anything emotive. |
| | Well, it's very simplistic looking, so it looks similar to maybe a corporate type of website, a corporate design. |
| | As I said, it's not giving off emotion as if it's talking to the person. It looks like an information site. |
| | Well, it looks like a corporate website, so it could be a corporation who are trying to justify their position. I mean, it's got the little oil wells down here, so to me that looks like it perhaps put out, could be someone like Texaco or Shell or... It doesn't look like it's a group of Green activists, there's no sort of emotion, and "We're killing everybody", you know. [laughter] |
| B8 | I suppose I think I'd go to a website like this to find more information, so it's the source of information I suppose. |
| | Trust it to have a look at it, yeah. Because it isn't linked, in that sense that it's showing independence. It's not saying "brought to you by Federal Government, but we've made the website pretty so you don't realise it's us." |
| | ...I'm thinking obviously research-based because it's all, material that's presented, so I wouldn't be surprised if it a group of unis that collectively, there was work happening, to use that old think tank expression. |
| B9 | Just looks like a Powerpoint that you'd see at work, rather than something to catch you. |
| | Yeah, I would have thought this is some, not sure that it's Government but maybe like a government probably where there's a very statistical type approach, the graphs and the percentages. |

## Appendix D Utterances describing the decoded visual artefacts as counter-hegemonic coding for all artefacts

| number of utterances | Visual artefact 1: *Keep Buying Shit* | Visual artefact 2: *Apology from the Future* | Visual artefact 3: *The Consensus Project* |
|---|---|---|---|
| Counter-hegemonic code | 25 | 3 | 2 |

| Viewer | Counter-hegemonic code utterances for visual artefact 1: *Keep Buying Shit* |
|---|---|
| L1 | Interestingly, this comes more across as an individual sending it out rather than a corporate message or a government message. I think that's more to do with the style and the directness of it. There's no obvious branding in there. There's no hidden agenda. |
| | [Discussing another visual artefact but referring to *Keep Buying Shit*] Whereas the other one just looked like it was an interested party trying to help. |
| L2 | I just think it's kind of a really accessible message. You look at it and it's slightly funny. You kind of think, yeah. It's not the traditional message you're used to seeing around climate change. Kind of pictures of polar bears on ice caps and global leaders, desperate looking people. It's just kind of like, this is the actual reality of what you can do. You can make a big pile of shit and seagulls eat it. |
| | I like the fact the message is atypical. It's not the general, this is how we talk about climate change. |
| | Yeah. I think you could put that into even a fashion magazine, and it wouldn't look necessarily out of place. |
| | I don't think Anna Wintour is going to get that. |
| | I feel like it would be some kind of grass roots movement. I feel like it would be a charity. I don't feel like this is from a government. If it is I would be very surprised. And I don't think it's coming from any corporations or anything, because they wouldn't tell you to stop buying things. |
| | Yeah. Community. |
| L3 | Because I think it has the strongest influence. It talks to you. It talks at you very strongly in terms of the visual perspective. The other two you showed me, the first one with Barack Obama was a bit of a political campaign, that kind of stuff. And the other one looked little bit like from The Economist. And they didn't have this kind of visual impact on me. That talks to you straight away if you're going to carry on buying these things, this is what you might end up with. |
| | I know that it sounds simple, but I think it is the ecologists and environmental activists. Or any kind of organisation that have those environmental issues on their agenda. I don't think this has anything to do with the government because you wouldn't get that kind of message. Though, having said that, I think that in the UK they've recently started doing those kind of more direct messaging that talks to you straight away. Definitely someone that has the environmental matters very close to their heart, I would say. |
| L4 | I guess because it wasn't particularly political. The other two seemed either more factual or political. This one seemed a bit more – I could relate to it in terms of someone that isn't actively involved or is talking and thinking about climate change. |
| | I think it's quite funny for a start, which is good. Because, in a way, it's getting an important message across but it's being humorous at the same time. Whereas when I looked at the other two, they were quite sort of formal. Whereas if you can get the message across while still making it humorous, that's always a good thing. People are more likely to read it and engage with it, I think. |
| | Yeah. I would say this is pretty trendy. I think that people who are older probably wouldn't resonate very much with this. But the way that the text is styled, obviously the use of the swear word, the colours being quite sort of all over the place. It is quite difficult to look at, but younger people would resonate with it more. Just because it stands out from your standard block colour with one colour text. It's all a bit over the place. |
| | I would say it would be a kind of – this is a weird way to describe it. But kind of like a wacky environmental group. Rather than your local council or something. It's unlikely to come from them. Sort of the guys that you see out on the streets asking you to sign petitions and stuff. |
| | Because they're passionate about it. They just come at it from a different angle than your more regulatory or authority stance. |

| | |
|---|---|
| L5 | Obviously it's not associated to anyone. So if you saw just that you'd think, oh that's a bit strange. If it had a little thing in the bottom right in yellow saying Greenpeace or whoever, it would make more sense. |
| | And also, the swear word I kind of get, but that to me looks like it's done by a sort of young Greenpeace, up and coming organisation. That is street-wise and knows this will catch people's attention |
| | A pro-environment sort of organisation. I certainly wouldn't say it's government. |
| B7 | Well, yeah. Look, as I said, [the other example was] very corporate, whereas when you actually read this though you think "Yeah". |
| | No. Well, I think it looks like it's been put together by an organisation that's trying to create emotion with people. |
| | I might be wrong, but just the way they say it. They say what they mean. They're not trying to make it sound scientific. |
| | The message is better on that than the other one that was just like statistics and ninety-seven percent and... Yeah, no real content. |
| B8 | Like, if this was in downtown Brisbane, or Westfield—I doubt it would get it inside of Westfield—but I think that's where it would work. But if this was on the highway halfway to the Sunshine Coast, well, it needs to have an immediacy to it. |
| | For this one, I'd say it would be.. it's definitely not government. , I'd say a concerned group, but it doesn't necessarily need to be directly aligned with like Greenpeace or something. This could be something that's got not that direct link in a sense. |
| B9 | It has a little bit of a joke about the seagulls, so it's a bit comical as well. It's having a go at you but it's bringing you in as well, if that makes sense. It's saying "You're buying shit", but it's still having a joke that we all probably do. |
| | Oh, the fact that they've put "Keep buying shit", probably it's not gonna be government. It'd be like a Green activist type ad, I'm not saying particularly Greenpeace, but it would be a Green orientated activist Get Up, or whatever they're called, something along those lines. |

| **Viewer** | **Counter-hegemonic codeutterances for visual artefact 2:** *Apology from the Future* |
|---|---|
| L2 | I think it's quite cool. I like it because they've done something that's a little bit out of the ordinary. They've kind of gone somewhere maybe you shouldn't go. You're ageing Barack Obama and putting him on a poster saying, sorry I didn't stop climate change. I think it's quite impactful. I think it's very powerful. It's quite simple as well. They've not over-used colour, I don't think. It's quite white and black. |
| | It's Greenpeace, isn't it? It's a charity. You can obviously tell it's not come from a government or business source. |
| L3 | I think it's quite moderate in the sense that the first one was very disturbing and the other one used really strong colours. There was kind of a colour play. But this one focuses mostly on words. And it's about the kind of words that are being said rather than the visual, powerful images. |
| B9 | Again, I would have thought some sort of a Green activist type body, who's really sticking it into Obama for sitting on his hands, or whoever for sitting on their hands. |

| **Viewer** | **Counter-hegemonic code utterances for visual artefact 3:** *The Consensus Project* |
|---|---|
| B7 | I mean Climate Change to me brings vision of pollution in third world countries, and weather changes, so it doesn't really indicate anything like that. It doesn't indicate anything emotive. |
| B8 | Trust it to have a look at it, yeah. Because it isn't linked, in that sense that it's showing independence. It's not saying "brought to you by Federal Government, but we've made the website pretty so you don't realise it's us." |
| | No second thoughts, but , I'm thinking obviously research-based because it's all, material that's presented, so I wouldn't be surprised if it a group of unis that collectively, there was work happening, to use that old think tank expression. |

## Appendix E Producer utterances describing the concept of "flow" in discussion of their creative process

| **Flow utterances for visual artefact 1:** *Keep Buying Shit* |
|---|
| The thing I learned at RISD, the big motto, the big thing, is process. School is huge on process and getting lost in the process. That's where you find your answers. This piece is really process. |
| I'm just saying, in reference to this, it's like a group. I made 10 posters because they were so easy. I had a moment, where like, I was good with words. |
| All those were, like, the process. I just went to class with that. Then they were like, we love them, these are great, you're done. I was like, really? I thought I was just warming up. |
| I basically went to the image library, picked out a stack of images that were just polar bears and things that looked wrong – disasters and stuff like that. I was trying to just get into the mode. I just flipped them and as I saw them really quickly jotted down whatever came to mind. That's how I came up with the copy element. It was really just struck at the moment. I didn't finesse it, think about it. |
| And then I created something that he liked and other people liked, so it wasn't about preference or anything like that. It's just something, I struck the right note. |
| It was just getting lost in the process. I thought I was going to layer this image with something else, maybe like a contrasting beautiful green field and do this more retro, '70s throwback typography that would be like, the land beyond is only around the corner. Something like that. But no, it just worked automatically. It's so weird because I work so long on other things, and this is the one that keeps. |
| Interviewer: Are there decisions you made for this piece that you've used for consumer based pieces?<br>Respondent: Yeah. Again, it's all about getting lost in the process. |
| [referring to the introduced concept of flow] That's what I live for. That's what this thing was right here. |
| I live for that. I live to get lost. |
| That's the thing. Yeah. You have to get in a rhythm and start just cranking stuff out and not hold back. And then take a day and look at it again and be like, all right, well this sucks. |
| I learned everything there. I learned that what I had been doing that felt good, which was process, I was doing the right thing. |

| **Flow utterances for visual artefact 2:** *Apology from the Future* |
|---|
| But you know when you get that feeling about something and you just think this is going to be..... |
| I really enjoyed the process doing this. |
| I mean it's such a fluky project. |

## Appendix F Producer utterances describing the concept of "conscious practice" in discussion of their creative process

| **Conscious practice utterances for visual artefact 1:** *Keep Buying Shit* |
|---|
| I moved it a little bit and there was a little spacing between the letters. I gave it the right air so you could still see the image. And the typeface, it was Interstate. |
| It's the go-to font, from time to time. |
| It's such a big problem, there's no time to redesign it. We need to get this out there. |
| In your mind, the way things start bouncing around and then you're like, oh that's it. It relates back to Moby Dick. I'm going with white. |

| **Conscious practice utterances for visual artefact 2:** *Apology from the Future* |
|---|
| Well I knew that the panels would be backlit. From previous experience I'd seen stuff which, if you put too much colour in there you lose all that light. |
| And I literally within the day that I had left and crossed over to being like freelance with them, like, they asked me to have the idea, they just said "Look, we've had a brainstorm and we can't think of anything, you are in Australia can you come back with us with something the next day?" So I came up with this really terribly done, because we'd had the idea, well I mean I say we but it's me, in the evening and then, no, it was during the day, and then I had to knock something up really, really quickly and I was doing other work so it was just this terrible, terribly done Photoshop with some really, and I'd come up with a few other lines as well like, I can't remember what they were now. So yeah, they basically just came to me and said can you continue, because I would have done this in-house. That's how they came to me. |
| No, basically I will just come up with an idea and bounce it off someone. |
| Yeah, so mine is kind of minimalist, I'll do it, strip everything away, put it back in and I suppose that for me is the style, the idea comes first. |
| Well for me on this project it was all about climate change, it's all about the future. So trying to put the message across to journalists or whoever to make them think twice was behind the thinking before we got to this point. So the question was how do we make people think about the future in a completely different way that they haven't done before? I mean it will be easy to show the Statue of Liberty half under water I think but not true because it would only be like a metre higher or whatever or two. And the other thing behind it was to not over dramatise but just picture a situation in the future where people would just think "Oh" and twist their thinking slightly. So I wanted to give journalists that opportunity as well to just have a little glimpse, it's like a little peek into the future and what one future could be. |
| So, yeah, and I just thought well how can I do that? And then obviously the other aspect of the brief was that we want leaders to be there and these people, I imagine, have quite large egos. So to give them and to say to the journalists, look this is what their future could be like, it's kind of like having a little peek. |
| I think I probably would have concentrated more on the typography but I just felt like I did a few designs and every time I did it when I added something I felt like it took away from the idea. So it looked nicer but it wasn't so punchy. So I was always in this battle of what's going to stand out, what's going to look nice, what's going to be good for my portfolio. |

| **Conscious practice utterances for visual artefact 3:** *The Consensus Project* |
|---|
| We gave them three versions but they were all basically in this style. They were very good. |
| It was the same style, but they were different approaches to it. They were different ways of representing the infographics and things like that, but we never did, like, a 3D version. |
| Certainly infographics and pictograms and things like that have been kind of in style the last few years. It's something we do go to a lot. We also do lots of animation work, so typically either our clients are in entertainment and they do have assets. Or they don't have any assets, in which case having infographics to animate can still work out. |
| The reason I'm tentative is because it would depend on what our research came back with. |

## Appendix G Responses to the question "Do you trust scientists?

| Viewer | Stated trust in scientists from prompted question |
|---|---|
| L1 | I don't know. Because there's always somebody paying the piper. And again, it's like most forms of media, news print, magazine, there's always somebody twisting the statistics somewhere along the line.<br><br>Probably the person who is doing the information and the actual scientific research, probably. But then would question where his funding was coming from. I don't know. Put me down as unsure. Just put vague answer. |
| L2 | Yes. |
| L3 | I trust some. I don't trust them all. Do scientists include all the pharmaceutical companies? I would say they do. Do scientists include all the packaging companies? I would say they do. So I would say some, but not all.<br><br>I think it's the whole kind of environment around it, and the fact some of the companies are really focused on profit. I do trust scientists that do a lot of research on medical affairs and bio-technologists, et cetera. But it's very easy to just make some false reports and try to sell things to people. |
| L4 | I don't really know if I've ever thought about whether I trust them or not, to be honest. I guess it kind of depends on the context. Like, what I'm trusting them on. In terms of climate change, I'd say I'm a little bit of a sceptic. |
| L5 | I trust that they've got their figures right and that they're interpreting it the best way they see fit. But I don't trust 100 per cent what conclusions they come to.<br><br>I also think, to a certain extent, there's an element of – it's a bit like a doctor prescribing a pill, the scientist. And they've got a vested interest in it. I feel sometimes like that with science. Like, if a scientist for GlaxoSmithKline said, oh you know – it's a bit of an obvious example. Largely I do, but I'd probably want somebody else to corroborate what they say, type thing. |
| B6 | More than not. |
| B7 | It's a very difficult question, because scientific research is not really straightforward, and I know this is outside of what we're talking about, but one of my bus buddies is a scientist... She sits next to me on the bus. When she'll discuss things with me there's a lot of competition between scientists, there's a lot of political issues, how they get funding and it's not the romantic idea of a scientist working on something to find a cure or find a solution. They're actually battling between each other to get recognition or to find something that will get them funding to continue their studies. It's hard to say if I'd actually trust them.<br><br>You trust them or you believe what they're saying if you feel that it applies to you. Last night I watched a program on Catalyst, they had it on the Gut bacteria. I'm sitting there thinking "Right, yeah, I can understand that", because that can apply to me. If it didn't apply to me I'd probably say "What a lot of phooey".<br><br>It's hard to know. They all differ with their opinions and with their research, it's how they apply things, how you apply that research into your criteria that you're looking at. That's a very grey area. |
| B8 | I trust them so far as who they're working for. If it was just Dr so-and-so on the website, I wouldn't trust, because it could be anyone, or made up. But if it was so-and-so of this uni, or CSIRO, I'm just thinking, I trust CSRIO, I know that they're government but if it was an established body, I'd trust, yeah. |
| B9 | To some degree. Depends on the type of research, I suppose. I'd be suspect to whether the research is biased, who's performing the research. I'd just be concerned about bias, type of mentality in the background. Science itself I don't believe I doubt them, it's more the statistical slant that you put on the data that you get. |

## Appendix H Producer descriptions of aesthetic style of their visual artefact

| **Producer aesthetic style for visual artefact 1:** *Keep Buying Shit* |
|---|
| ... this poster is probably the most simple thing I've ever made. |
| I love it because it's punk rock. Just slap some type on a cool image and call it a day. It's lo fi. That image I found in the image library at RISD. The quality of the image, if you zoom in, you see all the dots like the old magazines. |
| It's a little finessed. You remember Adbusters? I was between that and just trying to be – you can say the most using the least, right? So making it accessible. And also there's nothing pretty about the genre. |
| *Interviewer: Why did you pick yellow? How did you decide?*<br><br>Bird poop. It's like that nasty, nasty.<br><br>*Interviewer: Because yellow is very much a now colour.*<br><br>Respondent: It's also a no-no for type usually, against a backgound like that. I always got in trouble with the purist Swiss teachers. They hated me. You can't do that with type. I'm like, well I just did and you're dealing with it. |
| *Interviewer: Did you literally just slap it on there, like leading decisions and things like that?*<br><br>No. I moved it a little bit and there was a little spacing between the letters. ... I gave it the right air so you could still see the image. And the typeface, it was Interstate. |
| Raw. To address an issue, you have to be upfront about it. I think adding anything to it would take away. It's the economy of the design itself. Straight to the essence. It's such a big problem, there's no time to redesign it. We need to get this out there. And I'd like to think that comes off somehow, like maybe unconsciously. Like a stop sign is a stop sign. There's no frilly things and little lights and bows and blings. |
| It's a slap in the face. Anybody. I would hope if you're a normal, quote unquote, human, it would stop you and make you think. That's why the message has to be quick. |
| We were supposed to be following that [a set aesthetic style], but again it's like the economy, like the sense of urgency. It's like, we have no time to design this thing. We have to get it out there. I think because I deviated a little bit from that it kind of stood out. |
| It's so simple. You can't really embellish on it. |

| **Producer aesthetic style for visual artefact 2:** *Apology from the Future* |
|---|
| I suppose for this the aesthetic style was secondary. So it was more about pushing forward the words "I'm sorry" with the face looking glum, old, disenchanted. So how would I describe the aesthetic style? I would say it's kind of not over-designed. But basically there to push the image and the text. So it is kind of classic advertising, less frills, the red I suppose we introduced for a, just the emergency. |
| The funny thing is I don't really have a lot to say about this particular aesthetic because it was all geared towards the image and very typographic driven. |
| I suppose less is more for this because we wanted anyone who walked through the airport, we just wanted them to be really confronted with the big typography saying "I'm sorry" and that kind of shocking image, well back then it would have been more shocking because they were obviously younger. |
| Well I knew that the panels would be backlit. From previous experience I'd seen stuff which, if you put too much colour in there you lose all that light. So these were kind of tucked away in dark corners so I really wanted them to glare and be noticed. So that was one of the reasons, that's why we used a lot of white space. |
| The font obviously using the condensed gives it a bit more impact, urgency, a bit shouty as well using the capitals, it's important, stop, look. Yeah, and it made the speech marks a little bit bigger just to make sure that it was clear that this was coming from, this statement was coming from this person. |
| Yeah, I don't really, I think it was more for me the typography and everything else and the light glaring out was just there to back up that image. For me it's about two things on this page. It's about the face and the two words, "I'm sorry". |
| Well the thing with Greenpeace is that if it's overdesigned I think they feel like you lose the message. |
| So Greenpeace for this, it's got to stand out. And that's one of the stylistic things of Greenpeace, it's about message more than style. So this, in effect, would fit into that category. |
| Anything over designed just gets over looked. |
| Yes, I mean for this it was more about the idea than the look |
| So it wasn't all about the design for me actually with this thing, it was more about the idea and how we could get that across in this big wasteland of news coverage, just nothing happening. |
| And that's part of the issue with climate change, communication. We don't have really good images, or proof, or the sensational stuff that you can use. |

| |
|---|
| Yeah, I'm pretty happy. I think I probably would have concentrated more on the typography but I just felt like I did a few designs and every time I did it when I added something I felt like it took away from the idea. So it looked nicer but it wasn't so punchy. So I was always in this battle of what's going to stand out, what's going to look nice, what's going to be good for my portfolio. |
| Well I suppose my style which comes from the Helvetica Neue, simple, clear, not too many frills. I mean my, I feel like my idea is more ideas driven than style driven. I mean that's why I would say that I'm not exactly the world's best designer. If I was working with someone else I'm sure, who had better, good design skills, then I feel we could probably be a pretty good team. |
| Yeah, so mine is kind of minimalist, I'll do it, strip everything away, put it back in and I suppose that for me is the style, the idea comes first. |
| Well for me on this project it was all about climate change, it's all about the future. So trying to put the message across to journalists or whoever to make them think twice was behind the thinking before we got to this point. So the question was how do we make people think about the future in a completely different way that they haven't done before? I mean it will be easy to show the Statue of Liberty half under water I think but not true because it would only be like a metre higher or whatever or two. And the other thing behind it was to not over-dramatise but just picture a situation in the future where people would just think "Oh" and twist their thinking slightly. So I wanted to give journalists that opportunity as well to just have a little glimpse, it's like a little peek into the future and what one future could be. So that was the idea behind it |
| I suppose if you think Barbara Kruger, is it Barbara Kruger? She used to get black and white photographs on advertising as an artist. That had a big impression on me and it's kind of weird that this has come up red, black and white. But her style is just so pared back. |
| Well for me I think the stronger the idea the less style you need. |

| **Producer aesthetic style for visual artefact 3:** *The Consensus Project* |
|---|
| The target audience is, generally speaking, people who were confused or not knowledgeable about global warming. We needed to make it as quick a read and as simple as possible. That kind of informed the overall visual style, so we purposefully kept things as simple as possible. Partially. I mean, it also needed to work well in social media, so things needed to shrink down and there was a lot of information. Beyond that, I think lots of the infographics we'd been doing internally were 2D anyway so that's kind of – I mean, we don't have a studio style, but that's usually what we do with things anyway. |
| Clean, simple, informative. |
| Psychologically, red was kind of the colour to go to, just because it's the alarming colour. Blue and green are the happy earth colours, but that's really not the message that we're trying to convey here. We wanted something that would convey some sense of alarm. |
| It seemed that the quantity and the potential complexity of the message was such that we didn't want to make the graphics overly complex, because that would make it even worse. And we wanted somebody to, at a glimpse, to just understand the 97 per cent as simply as possible. We also had the idea obviously of making it clean enough so that we could play with social media messages within it. You know, you could put images within the Pac-Man symbol. You could obviously put all kinds of type on top of it, and things like that. |
| We gave them three versions but they were all basically in this style. They were very good. It was the same style, but they were different approaches to it. They were different ways of representing the infographics and things like that, but we never did, like, a 3D version. |
| The reason not to use photography was we wanted to keep it as informative as possible without muddying it with what can be clichéd photos to begin with. Having said that, once we got into doing the social media, the things that got the most reaction were photos. |
| Certainly infographics and pictograms and things like that have been kind of in style the last few years. It's something we do go to a lot. We also do lots of animation work, so typically either our clients are in entertainment and they do have assets. Or they don't have any assets, in which case having infographics to animate can still work out. |
| Everything has got kind of a similar aesthetic. Everything stays in a box, pretty much |
| You know, if you want to play Monday morning quarterback, just based on our experience with social media stuff, of all the stuff we posted, the stuff that got the strongest reaction was the stuff that had photographs of weather-related events and then made a big deal over them as it related to climate change. Which, of course, is basically bullshit in terms of scientific reasoning because you can't do that. But far and away, those were the things that got the most attention. If I had the ability to push the scientists aside, and just make my own website, it would focus on the weather and have photos of weather and things like that. I wouldn't worry so much about cheesy penguins or whatever. It would be more bad weather things happening to cities. |
| Right. I mean, just because it got their attention doesn't mean it was effective. |

## Appendix J Responses to questions regarding telos of visual artefacts

1. HOPE: *Does this piece give you hope, or resignation, or any other type of reaction?*

2. DIFFERENCE: *Does it help you feel that you might be able to make a difference?*

| **Viewer** | *Question* | **Telos utterances for visual artefact 1:** *Keep Buying Shit* |
|---|---|---|
| L1 | 1 | I don't think hope at the moment. You'd hope that it would make a difference and people would notice. But I think it's sad. I think again it just makes me sad when you see this. Especially you know from when you've been sailing. You'll be sailing in the middle of nowhere and then you'll see random stuff just float past you. And you're thinking, I mean, I'm in such a small speck of the world and it's got all that random stuff that's just going past. You're thinking, that's really not great stuff to be in the ocean. I think it makes me sad, really. |
| | 2 | Yes. I need to be more mindful of stuff. When I pick something up I need to do the whole, do I really need this? |
| L2 | 1 | In some ways, it's not resignation but it kind of starkly shows you the kind of nature of the problem. I'm not sure it necessarily gives you hope. I think it's a clear message of you need to do something about this, but I don't think it's necessarily hopeful for the future. |
| | 2 | Not really. It makes me think I need to stop buying as much stuff because I don't need it. But it doesn't – yeah. It almost in some ways makes you feel like the problem is so big you don't know where to start. When you look at a big pile of rubbish. But it does kind of motivate me to buy a bit less. Even though I'm very conscious about not buying stuff. |
| L3 | 1 | I think it gives you more resignation than hope, because it is very dependent on us as citizens, as human beings. But I'm not entirely sure whether climate change and looking at what has been happening recently – that the climate change and the environmental issues are an agenda of that many people. Which is a little bit worrying. |
| | 2 | It does and it doesn't. Because straight away you think, am I spending too much money on things that I don't need? Is my consumption pattern the pattern that I shouldn't be following? I know that, to me, it kind of creates those direct thoughts. Thinking, am I doing something to prevent that? And I think it does make you think you can change things. But I don't know how long that is going to last, if that makes sense.<br>Yeah, but also the fact you're thinking, this week I shouldn't be buying this and this and that. But are you actually able to sustain that type of behaviour? |
| L4 | 1 | No. I wouldn't say it does. Doesn't give me hope. Because obviously the image is complete chaos. Although it's saying it in a jokey kind of reverse way, in terms of keep buying stuff, there's no explicit wording of how the problem can get sorted out. It's more up to you to sort it out yourself. It would make me think, but it doesn't really provide me hope. There's no easy solution laid out to the viewer. |
| | 2 | Yeah. I think so. Even though it doesn't really talk about any of the things it's trying to get you to do. It's more sort of like, oh my God, look at all that there. I need to think about what I'm doing. If I do throw away loads of stuff that could be put to better stuff elsewhere. So that's probably the reason I picked it straight away. Although I don't feel that I personally throw away stuff needlessly, I think if I was that sort of person, it would resonate with me more. |
| L5 | 1 | I think it gives you more resignation than hope, because it is very dependent on us as citizens, as human beings. But I'm not entirely sure whether climate change and looking at what has been happening recently – that the climate change and the environmental issues are an agenda of that many people. Which is a little bit worrying. |
| | 2 | It does and it doesn't. Because straight away you think, am I spending too much money on things that I don't need? Is my consumption pattern the pattern that I shouldn't be following? I know that, to me, it kind of creates those direct thoughts. Thinking, am I doing something to prevent that? And I think it does make you think you can change things. But I don't know how long that is going to last, if that makes sense. |
| B6 | 1 | Certainly doesn't give me hope. [laughter] |
| | 2 | I think it does prompt you to think about it and what you can do, yeah. That is something that annoys me, anyway, so for me that makes me think about it. |

| | | |
|---|---|---|
| B7 | 1 | It might give me hope living in Australia or in the Western World, but having seen such footage of environments like this in Third World countries where people actually live in places like this and actually make their living from places, dumps like that, I don't know if that gives me hope. But, you know, you see them. Children picking bits and pieces off the dump-site and selling it. |
| | 2 | Yes.<br>*In what way?* Well, to be conscious of what you're purchasing and what you're throwing away or can you recycle it. I mean, whether it's rubbish that you throw out from your kitchen. Obviously that looks like a lot of food stuff, but it does make you think beyond that, like whether you recycle clothes, give to charity. I do that... we have the clean out, give it to charity, or friends. |
| B8 | 1 | Yes and no. The garbage trucks will keep coming, even if it is for legitimate wastes. But again, I don't know what the size of the landfill is. I don't know how that's changed over time, I honestly don't. So if Brisbane City Council said, "look, our landfill used to be this big ten years ago, but it's now this big," and showing the increase that way, you might actually take a step back and say, "yeah we are throwing more away." |
| | 2 | Yes. Because, again, presented in the right, place, it could be front of mind in making a decision. Well, me personally, yes, but also others as well. Like, if this was in downtown Brisbane, or Westfield—I doubt it would get it inside of Westfield—but I think that's where it would work. But if this was on the highway halfway to the Sunshine Coast, well, it needs to have an immediacy to it. |
| B9 | 1 | Yeah, I don't know that it gives me hope. It sort of reminds me that it's not good. Small sense of hope in the fact that it has the potential maybe to change some people's minds, but probably you just see it as an inundating type of thing that's just gonna snowball and keep growing so probably develops more concern, I guess, about it. This is a reminder that you think, well we're not in a good place and that's putting us there. |
| | 2 | To some degree, yeah. It's something that probably would stick in my head. I mean, I like to think I'm pretty disciplined type of person who doesn't need reminders to... but there is a reinforcement value in it. For some people I imagine that don't do much in regards to trying to reduce their waste, it may help them, remind them more. Again, when I have stuck my head on something, that's the way I do it, I tend to do it. |

Appendix J continued: Responses to questions regarding telos of visual artefacts

| Viewer | *Question* | **Telos utterances for visual artefact 2:** *Apology from the Future* |
|---|---|---|
| L1 | 1 | I would hope that, given the time frame we've got, we can make some steps towards being able to actually – it's never too late to stop doing something. But the quicker we can stop doing the bad things, the better. |
| | 2 | As an individual, not so much. As a group, yeah, probably. You could do an online petition or something. |
| L2 | 1 | I think hope in some ways. Because it's saying, well we haven't done anything about it. So kind of – I mean, it's kind of hope and kind of disappointment. Disappointment or realisation, kind of realism. That leaders are not necessarily trying as yet to mitigate climate change. But it's also saying there are lots of people out there that do want to do something about it. Come on. You be one. |
| | 2 | Yeah. I mean, they're kind of peddling the fact that the leaders aren't really doing anything. But they're setting up a change the future slogan on there which makes you think, I can actually get involved and do something about this. It's trying to encourage you to act. |
| L3 | 1 | [did not ask] |
| | 2 | I would say it doesn't as much as the other two, because it talks about leaders. I know you do help to choose the leaders, but at the end of the day you're just one little, tiny person in a bigger society. So the fact that I vote for someone doesn't mean that everyone else is going to vote for them as well. |
| L4 | 1 | [did not ask – viewer was confused by message of visual artefact] |
| | 2 | [did not ask – viewer was confused by message of visual artefact] |
| L5 | 1 | Oh, resignation. Maybe that's just me. But I think to a certain extent – no. There's nothing in there. There's no message in there to say, I'm not going to be saying that in 2020. |
| | 2 | No. It's kind of – no. It's quite negative. I'd say it's quite negative. If anything, I probably should maybe feel a bit more passionate about it, but it's not something that makes me angry. But I would look at that and think – if I was more inclined to be that way, I'd feel a bit angry about it. Think, well you need to do something. Like, sort of, email my MP or whatever. But to me it's quite strong, fairly sort of negative, but it's more likely to make me a little bit angry rather than anything else. |
| B6 | 1 | I don't think it gives me hope. For me, it is all down that one path of "Yes, it is our fault and we should have changed it". I like a bit of history and a bit of geology and geo-science type of thing and you can see where we've been through cycles over thousands of years and millennia. We've got ice core data that shows this has happened. Unrelated to what we're doing now, we certainly can see that what we do has an effect on it, but it's a marginal impact, I feel, that we've had. I don't know, I just think that that is a completely one sided opinion of it. |
| | 2 | No. |
| B7 | 1 | Not really. I think you'd probably forget about it if it wasn't put in front of you. |
| | 2 | No. |
| B8 | 1 | I mean I'm looking at a campaign from 2009.<br>At the time when I was in London and knew that this was going on, there was that kind of sense of optimism that they would actually talk and something would happen from it. The skeptic in me wonders how much did happen. |
| | 2 | Not as an individual. |
| B9 | 1 | Gives hope in the sense that if the right politician was in to make change, then there could be positives. It doesn't give me hope in the fact that there's politicians still there that haven't progressed from that point. |
| | 2 | Probably, again, what I said earlier about that I know that I make a small difference. When I look at that I feel like we're not making the big differences and that's where it's not happening.<br>The other ones may be targeting, you know the one with the rubbish particularly, it might be how you live your daily life, where this is more what are the policies or what are the things that are changing, what other things are happening, so it's probably a bigger picture. |

Appendix J continued: Responses to questions regarding telos of visual artefacts

| Viewer | *Question* | **Telos utterances for visual artefact 3:** *The Consensus Project* |
|---|---|---|
| L1 | 1 | None of the above, really. |
| | 2 | No. Although it talks about statistics and what papers are doing, sort of scientific papers are doing, it doesn't relate it back to individual's culpability. |
| L2 | 1 | I don't really know. I don't know how it. It gives me hope in the sense that there are people who are really trying to get people to buy into the whole climate change thing. |
| | 2 | No. |
| L3 | 1 | I would say more resignation than hope, because again we are the cause. But, having said that, if it was something else, if it was something to do with politics, et cetera, or medical study, that would talk at me more. But because of the fact that this is a climate change environmental issue, it makes you feel it's a bit like a European Coalition climate paper. |
| | 2 | Well, it tells you that you're the cause. It tells you that you're the cause, but I don't know. I don't think so. I think the evidence is there, but it's scientific evidence. You can't see that direct picture, this is what you've done. You have to pay for it. |
| L4 | 1 | I guess you could say it does give you some element of hope when you look at the solutions are within reach. You could sort of say, okay, it is a real problem but these guys are working on it. They understand what the cause is and they're actually going to propose something. So, if you were click through and find something good on there, then you might have some hope the situation is going to get turned around. |
| | 2 | No. Because, well, although it's obviously got the bit about being human, it doesn't – whereas the other one was sort of saying, we're throwing away too much rubbish. I can't see anything here about specific activity that they're talking about. It's more the solutions are within reach. You might be able to find out some more there. |
| L5 | 1 | I don't know what it does. It's nowhere near as strong as the other one. I don't know. Hope in a way that it's showing what the cause is. But that's about it. So it's not brimming with hope for me. |
| | 2 | It doesn't help me feel I could make a difference, but it helps me think I possibly could – or rather, I possibly should. Not necessarily that I could. |
| B6 | 1 | [did not ask] |
| | 2 | No, no more than the others, I don't think. |
| B7 | 1 | I think that to me, I wouldn't say it gives me hope, it looks more like a site that you would go to for information or to read what they've got to say. Looks quite, as I said, factual or... |
| | 2 | I think you'd have to read what it has to say. You'd have to actually go through and click on the buttons or whatever they've got, and at this stage, just looking at that front page, you'd have to go further into the site probably to find out if what they're saying applies to you, or say to me. |
| B8 | 1 | [did not indicate emotional response] |
| | 2 | I think I would want to go more into the website. |
| B9 | 1 | Probably similar, I mean, doesn't give me resignation but it doesn't make me feel optimistic about the future of climate change. They all generate the feeling that it's possible to make change, so you can make change back, I guess, but there's nothing in there that makes me think that people are going to change, I guess |
| | 2 | Looking at, you can see that there's options and stuff available, but looking at it you just think, nah it's probably all... Looking at that, there's probably nothing that goes "Oh, let's hope or..." It's all just turning to shit, isn't it. |

# Appendix K Human ethics approval certificate

University Human Research Ethics Committee

## *HUMAN ETHICS APPROVAL CERTIFICATE*

***NHMRC Registered Committee Number EC00171***

**Date of Issue:** 30/9/13 (supersedes all previously issued certificates)

Dear Ms Becky Green

A UHREC should clearly communicate its decisions about a research proposal to the researcher and the final decision to approve or reject a proposal should be communicated to the researcher in writing. This Approval Certificate serves as your written notice that the proposal has met the requirements of the *National Statement on Research involving Human Participation* and has been approved on that basis. You are therefore authorised to commence activities as outlined in your proposal application, subject to any specific and standard conditions detailed in this document.

Within this Approval Certificate are:

* Project Details
* Participant Details
* Conditions of Approval (Specific and Standard)

Researchers should report to the UHREC, via the Research Ethics Coordinator, events that might affect continued ethical acceptability of the project, including, but not limited to:

**(a) serious or unexpected adverse effects on participants; and**
**(b) proposed significant changes in the conduct, the participant profile or the risks of the proposed research.**

Further information regarding your ongoing obligations regarding human based research can be found via the Research Ethics website http://www.research.qut.edu.au/ethics/ or by contacting the Research Ethics Coordinator on 07 3138 2091 or ethicscontact@qut.edu.au

*If any details within this Approval Certificate are incorrect please advise the Research Ethics Unit within 10 days of receipt of this certificate.*

### Project Details

| | | | |
|---|---|---|---|
| **Category of Approval:** | Human Negligible-Low Risk | | |
| **Approved From:** | 30/09/2013 | **Approved Until:** | 30/09/2016 (subject to annual reports) |
| **Approval Number:** | 1300000634 | | |
| **Project Title:** | The role of aesthetics and style in the visual communication of climate change | | |
| **Experiment Summary:** | Understand the contribution that graphic designers are making in the communication of complex, challenging issue of climate change. | | |

### Investigator Details

**Chief Investigator:** Ms Becky Green

**Other Staff/Students:**

| Investigator Name | Type | Role |
|---|---|---|
| Aspro Barbara Adkins | Internal | Supervisor |
| Dr Manuela Taboada | Internal | Supervisor |

### Participant Details

**Participants:**
Approximately 20

## Appendix L Recruiting email for producer participants

Phase 2: Design studio approach email

Subject Title: Participate in a PhD research study investigating the visual communication of climate change

Dear (Graphic Designer Name)

My name is Becky Green from the School of Design at Queensland University of Technology. I have been a practising graphic designer for 16 years, and I'm currently studying for a PhD on the visual communication of climate change.

Your studio has been selected as it is a great example of designers participating in the promotion of the climate change issue. Your piece (INSERT TITLEXX) is the one I have seen, but you may have other pieces you would rather feature. I would like to reproduce this design as one of a small number of examples in my PhD thesis and in future research papers. If this is something you are able to give permission for, I will send a consent form via email, or deliver in person to discuss.

A key part of my study is to investigate using face-to-face interviews, what kinds of practices, techniques, and styles are applied by the designers when creating these pieces. Would you also consent to forwarding an email with my contact details to the designers who were involved with the featured piece? Designers who may be interested are then able to email me should they wish to participate in the study.

These interviews would take about an hour for each designer at an agreed upon and suitable location. I will be visiting your city to interview participants between (Date) and (Date). If you would like to be involved please contact me via reply email with any questions.

Please note that this study has been approved by the QUT Human Research Ethics Committee (approval number 1300000634).

Many thanks for your consideration of this request.

Becky Green
PhD Student
School of Design
Queensland University of Technology

Design Institute of Australia (DIA) Accredited Designer™
Australian Graphic Design (AGDA) Association Member

+61 438 531 071
becky.green@student.qut.edu.au
bgreen@57design.com.au

## Appendix M Recruiting email for viewer participants

Phase 3: Audience member approach email

Subject Title: Participate in a PhD research study investigating the visual communication of climate change

Good morning,

My name is Becky Green from the School of Design at Queensland University of Technology and I'm studying for a PhD on the visual communication of climate change.

(INSERT CONTACT NAME) has forwarded this email to you, as someone who may be interested in a short interview on (INSERT DATE) about your perceptions of the advertising and design of climate change messages.

If you'd like to help me in this study I'm looking for participants between the ages of 18 and 65 to discuss reactions to advertisements and graphic design pieces I would bring along. This is estimated to take about an hour. All you need to do is reply via email, and we can set up a time and suitable location to meet.

If you have any questions, please don't hesitate to ask them. If you would like to help I'll send a consent sheet for your information, and bring a copy of it for you to sign on the day.

Please note that this study has been approved by the QUT Human Research Ethics Committee (approval number 1300000634).

Many thanks for your consideration of this request.

Becky Green
PhD Student
School of Design
Queensland University of Technology

Design Institute of Australia (DIA) Accredited Designer™
Australian Graphic Design (AGDA) Association Member

+61 438 531 071
becky.green@student.qut.edu.au

## Appendix I Interview questions: producers

Participant group 1: Design Studios

The nature of this research project is a semi-structured interview, so there are few specific questions, but prompts to engage discussion of the material. Any comment on any subject is actually really welcome.

I've been a designer for 16 years, so it's OK to use jargon or references, if there's anything I don't understand or get I can just ask you to clarify, and same with you. That's one of the best bits about this type of study: clear understanding and depth.

I'm interested in a range of things that might have a bearing on how we design these communications, like your background, career.

We'll start with some general questions about you as human and designer, then move to a more targeted themes around the design we're featuring, like the aesthetic qualities, the audience, how the job came about and what processes you used to create it.

**General Questions about you as human and designer**

1. How long have you been a designer?
2. Where do you see design going? What attracted you to this niche?
3. What sort of position or reputation would you like to have?
4. How do you see the featured piece relating to the position you would like to hold?
5. Where did you study, what did you study, how long ago?
6. Other types of workplace prior to this one?
7. What was the last song you played on your ipod? Other favourites? How would you describe the genre, or the song?

**Aesthetic qualities of the featured piece**

8. How would you describe the aesthetic style?
9. How did you decide to use that style/those elements?
10. Did the client have an idea of an aesthetic style they were interested in?
11. Is there a studio "style", or a current trend you followed?
12. Are there decisions that you made for this piece that you also use for different, or consumer-based pieces?
13. Would you design a different aesthetic feel for another country, eg Australia?

**The intended audience**

14. Who was the client, and were they seen as the "authority" on the subject? Ie Greenpeace (yes) or oil company (no).
15. Who was in the intended target audience?
16. Was there anyone else you were trying to reach with this communication
17. What were you trying to achieve (ie behaviour change)

**How the job came about / studio process**

18. Backtrack a bit, can you describe how the job came about, what happened, client meetings etc.. how you came to design this particular style
19. Did you ask other designers in the studio for feedback?
20. Is that how you would approach most design jobs?
21. Did you enjoy the process, was it difficult?
22. Did you do more commercial designs at the same time as this one?
23. Did you notice any difference to how enjoyable, or easy etc the jobs were?
24. Are you happy with how it turned out? What would you change?

**Miscellaneous questions**

25. Did the design win any accolades or awards?
26. Have other pieces won? What do you think the similarity/differences were?
27. Did you learn any theory about aesthetics in particular, or style at your design school?
28. Where do you find your information on how to persuade using visuals?

Studying the aesthetic style of these communications: often studies are based around abstract elements like colour or shape. Other studies, post-design, use forced exposure testing, but aesthetic style is what makes you notice a design or ad in the first place, so that purpose is defeated.

Aesthetic style also decides what emotion you attach, most studies discuss the image as representation, rather than how it is styled. Eg a cyclist, but no mention of whether it was a racing cyclist, a commuter.

## Appendix N Interview questions: viewers

**Participant group2: Audience Members**

There are two parts to the interview, firstly I'll ask about you, your background, and your opinions. Then we're going to look at three pieces of designed visual communication and just have a fairly unstructured chat about your reactions to it. I have questions, but really anything you want to say is so useful for me. Any questions before we get started?

**Background and general opinions**

1. What do you think about human-influenced climate change? Where on the spectrum would you sit?
2. Tell a little about childhood, where you grew up, what schools, if university, work etc.
3. Hobbies, what do you like doing?

**First visual artefact**

I'm going to show you three different pieces of graphic design: ads, or poster or the like.

1. Without thinking about it too much, I'd like you to choose the one you are drawn to at first.
2. Why did you select it?
3. Does it make you feel any emotions that you can describe? eg irritated, angry, sad, guilty, hopeful,
4. Does it match what you think about climate change?
5. What do you like about it?
6. What do you think about the style of it: it is trendy?
7. Do you feel that this is talking to you, or to someone else?
8. Do you feel that this is talking to you individually, or as part of a group?
9. Does this piece help you feel you might be able to make a difference? (if 3 was not productive).
10. Does it give you hope, or resignation, or any other type of reaction? (if 3 was not productive).
11. Who do you think is the authority doing the talking?
12. Do you trust them?
13. How much time would you spend online per day?
14. Do you trust scientists?
15. Do you feel that you can make a difference to the climate change situation?

**Second visual artefact**

Back to the three different pieces of graphic design.

1. Without thinking about it too much, I'd like you to choose the one you are drawn to the least.
2. Why did you select it?
3. Does it make you feel any emotions that you can describe?
4. Does it match what you think about climate change?
5. What do you like or dislike about it?
6. What do you think about the style of it: it is trendy?
7. Do you feel that this is talking to you, or to someone else?
8. Do you feel that this is talking to you individually, or as part of a group?
9. Does this piece help you feel you might be able to make a difference?
10. Does it give you hope, or resignation, or any other type of reaction? (if 3 was not productive).
11. Who do you think is the authority doing the talking?
12. Do you trust them?

**Third visual artefact**

1. That leaves this one as your second preference.
2. Why did you select it?
3. Does it make you feel any emotions that you can describe?
4. Does it match what you think about climate change?
5. What do you like or dislike about it?
6. What do you think about the style of it: it is trendy?
7. Do you feel that this is talking to you, or to someone else?
8. Do you feel that this is talking to you individually, or as part of a group?
9. Does this piece help you feel you might be able to make a difference?
10. Does it give you hope, or resignation, or any other type of reaction? (if 3 was not productive).
11. Who do you think is the authority doing the talking?
12. Do you trust them?

**Final questions**

1. Do you trust scientists?
2. Do you feel that you can make a difference to the climate change situation?
3. Any further thoughts on how this issue affects you personally?

## Appendix O Decoding: Order of viewing for visual artefact 1: Keep Buying Shit

Viewers were asked general questions about each visual artefact. The order in which they referred to each signifier was identified in the transcript and expressed using both visual representation and the types of signifier found in "Table 5-1. Typology of signifiers in visual artefacts" on page 81. The point at which discussion turned from descriptive to the subject relating to personal experience is marked.

# L1

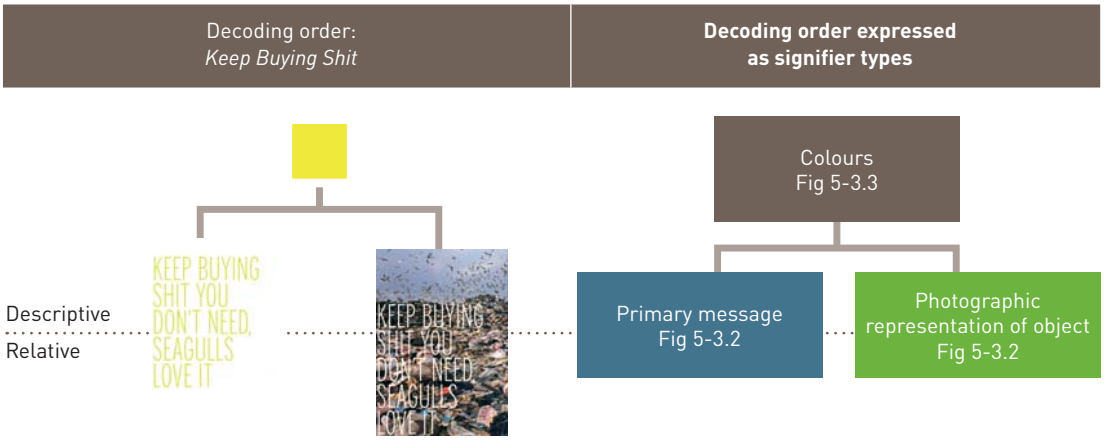


Figure 8-1. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by L1 viewer based on order of utterances in Table 8-3.

Table 8-3. Decoding: utterances of L1 viewer about visual artefact 1: *Keep Buying Shit*

| **L1:** *Keep Buying Shit* **example utterances** |
|---|
| It's interesting they've chosen yellow, because if you're dyslexic yellow is quite a hard colour to see. |
| ...it's not just the stuff that you buy that you throw away. It's all the stuff that goes into making the stuff that you buy and throw away. And the packaging that's normally huge when you buy something that's really tiny. |
| I just like it because, especially in this day and age when people seem to have the attention span of the ant – it's very, this is it. And you're drawn to it because it's such an unusual picture as well. Even the pictures that we see of the various different states of the world, it's still not something that you see every day. So I think your eye is drawn to it. They could have done a slightly better colour on the text, though. |
| I think again it just makes me sad when you see this. Especially you know from when you've been sailing. You'll be sailing in the middle of nowhere and then you'll see random stuff just float past you. And you're thinking, I mean, I'm in such a small speck of the world and it's got all that random stuff that's just going past. You're thinking, that's really not great stuff to be in the ocean. I think it makes me sad, really. |

# L2

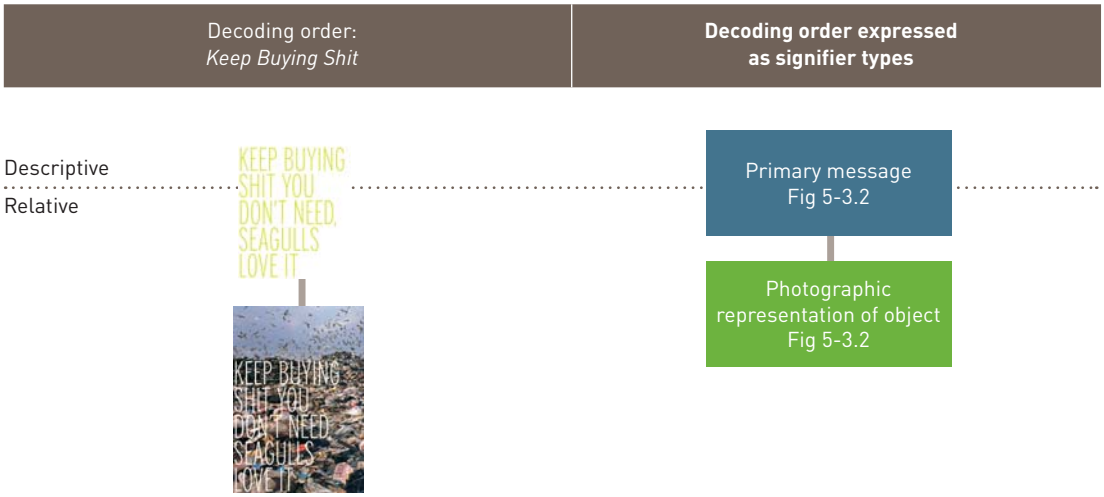


Figure 8-2. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by L2 viewer based on order of utterances in Table 8-4

Table 8-4. Decoding: utterances of L2 viewer about visual artefact 1: *Keep Buying Shit*

| **L2:** *Keep Buying Shit* **utterances** |
|---|
| I just think it's kind of a really accessible message. You look at it and it's slightly funny. You kind of think, yeah. It's not the traditional message you're used to seeing around climate change. Kind of pictures of polar bears on ice caps and global leaders, desperate looking people. It's just kind of like, this is the actual reality of what you can do. You can make a big pile of shit and seagulls eat it. |
| It kind of makes me laugh. It's a bit humorous. But it also makes me feel a bit disgusted. |
| It makes me think I need to stop buying as much stuff because I don't need it. But it doesn't – yeah. It almost in some ways makes you feel like the problem is so big you don't know where to start. When you look at a big pile of rubbish. But it does kind of motivate me to buy a bit less. Even though I'm very conscious about not buying stuff. |

# L3

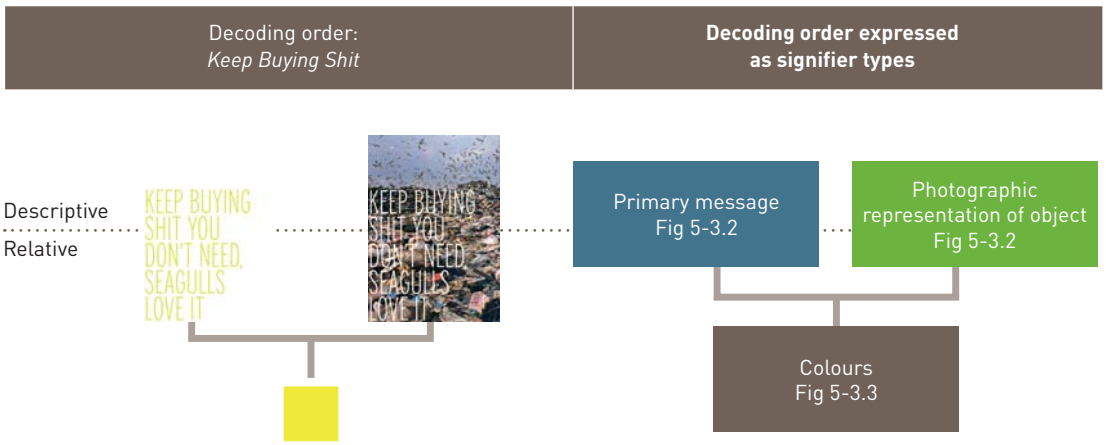


Figure 8-3. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by L3 viewer based on order of utterances in Table 8-5.

Table 8-5. Decoding: utterances of L3 viewer about visual artefact 1: *Keep Buying Shit*

| **L3:** *Keep Buying Shit* **utterances** |
|---|
| They didn't have this kind of visual impact on me. That talks to you straight away if you're going to carry on buying these things, this is what you might end up with. |
| I think it makes you feel really uncomfortable, because on a daily basis you actually don't realise that you're supporting the environment in a negative way. In that sense, because we live in a nice city, I think London is quite tidy when you compare it to places like Paris, et cetera. And I think you don't see just piles and piles of rubbish laying on the street. But obviously that does end up somewhere. But the ordinary citizen would not necessarily see that, but you know that at the end of the day you're the person that contributes to it. |
| I think the kind of words you put in here, they're very strong because it talks about the stuff you don't need. And it's very direct. I wouldn't say that from the visual perspective it's very strong because the yellow-green type of font is kind of blending into the pile of rubbish. But maybe that's something that someone wanted to achieve. I'd probably put it slightly more toned, but it definitely talks very strongly at you. It's very disturbing, I would say. |
| I think it's very kind of disturbing and irritating actually. |

# L4

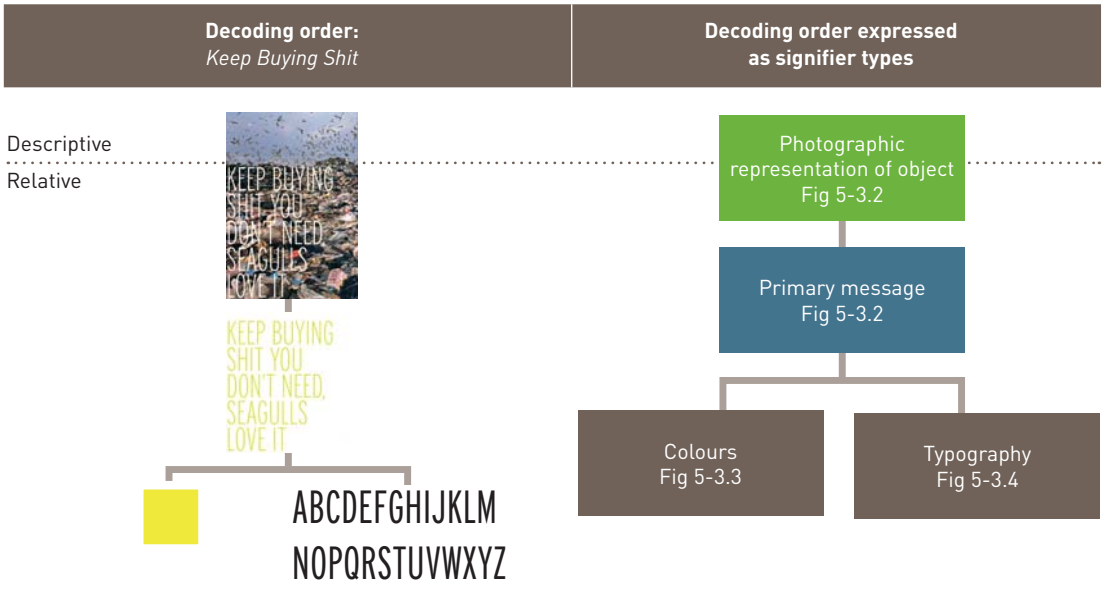


Figure 8-4. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by L4 viewer based on order of utterances in Table 8-6

Table 8-6. Decoding: utterances of L4 viewer about visual artefact 1: *Keep Buying Shit*

| **L4:** *Keep Buying Shit* **utterances** |
|---|
| I guess because it wasn't particularly political. The other two seemed either more factual or political. This one seemed a bit more – I could relate to it in terms of someone that isn't actively involved or is talking and thinking about climate change. The other thing is, about 10 minutes from my house there's a big dump and it looks like that. There are always quite a lot of birds hanging around. It just kind of resonated with me, I guess. But also, things like, for example, my next door neighbour's bin is always absolutely overflowing and I don't really understand how they generate that much waste. That was probably something I didn't mention earlier. I always make sure I can do what I can in terms of recycling. I make sure stuff is separated and what-not. And it is kind of annoying when people don't even bother, when the majority of the work is done for you by the council and the bin provisions, collections, et cetera. It's something that's really easy to do. |
| Not that the picture itself is irritating me, but the thought of people needlessly just buying loads of stuff that they don't need that then ends up getting thrown away. I was reading an article the other day about the new, massive super mall in Dubai. It's currently the most visited place on earth. And it was just all about people buying stuff to be able to show off to other people. |
| When you see that photo, you can just see an absolute mound of stuff that people just don't need. So I wouldn't know exactly how much that contributes to climate change and global warming, but it's an annoying photo to look at. But it kind of caught my attention anyway. The text is a little bit hard to read, though. |
| I think it's quite funny for a start... it's getting an important message across but it's being humorous at the same time. Whereas when I looked at the other two, they were quite sort of formal. Whereas if you can get the message across while still making it humorous, that's always a good thing. People are more likely to read it and engage with it, I think. |
| But the way that the text is styled, obviously the use of the swear word, the colours being quite sort of all over the place. It is quite difficult to look at, but younger people would resonate with it more. Just because it stands out from your standard block colour with one colour text. It's all a bit over the place. |

# L5

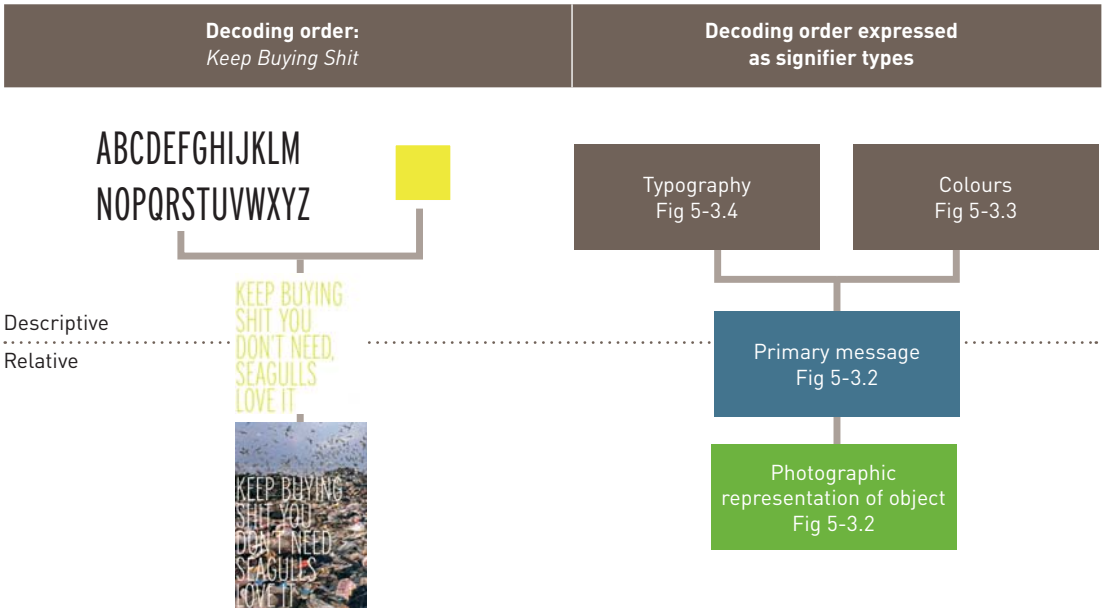


Figure 8-5. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by L5 viewer based on order of utterances in Table 8-7

Table 8-7. Decoding: utterances of L5 viewer about visual artefact 1: *Keep Buying Shit*

| **L5:** *Keep Buying Shit* **utterances** |
|---|
| Yeah, that one, the font is the wrong colour. Or it's not strong enough. |
| I'm not in the least bit anti-swearing. I swear myself. But, doing that kind of thing, you definitely stay away from swearing. Because it's the kind of thing that would put a number of people off that thing in the first place. |
| See, I'm quite analytical. I'd look at that and think, A, why have they sworn? And B, why do they say seagulls? Because it's not always seagulls. But I totally get what it's saying. Initial kind of look at it though, I'd wonder what I need to not buy to make a difference. |
| Yeah. I assume that's in terms of packaging or just general stuff you're not going to use and throw away. Obviously it's not associated to anyone. So if you saw just that you'd think, oh that's a bit strange. If it had a little thing in the bottom right in yellow saying Greenpeace or whoever, it would make more sense. But that would make me look, so it's a lot more in your face than the previous one. But I'd just say those two things: I'd have to think about what I need to not buy. And also, the swear word I kind of get, but that to me looks like it's done by a sort of young Greenpeace, up and coming organisation. That is street-wise and knows this will catch people's attention, but I think it's slightly misaligned. |
| But I think yeah, I look at it and think, I absolutely get it. They kind of swore, which I think would offend some groups. And seagulls? What are you talking about seagulls for? The main thing is I'd have to think about what I'm not supposed to buy. |
| I quite like the style. Ignoring the text, I totally get the image. |
| If it had something else underneath it – we are ruining the environment by blah-blah-blah. And then in the bottom right, Greenpeace, and please do what you can. |
| I think because you can see exactly what it's doing, that gives you a little bit of hope. Because you can think, oh, there's a milk carton there. Actually, I can make sure I put it in the plastics recycling thing, which I do. In that sense it gives you a bit of hope because you can see something that everyone does that maybe you could do a bit less of. |

# B6


Figure 8-6. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by B6 viewer based on order of utterances in Table 8-8

Table 8-8. Decoding: utterances of B6 viewer about visual artefact 1: *Keep Buying Shit*

| **B6:** *Keep Buying Shit* **utterances** |
|---|
| I suppose it gets your attention, with the waste heap. |
| I do think there is a lot of waste. |
| I suppose just reinforces that I do think there is excessive use in first world countries. One thing that I talk about in pubs and wherever we're talking about things like this is that massive island of waste out in the Pacific. |
| Oh, things like that which we should be doing about I think in the forefront instead of some other things that are getting so much more media attention. That's what that reminds me of, that island of waste. Yeah, I think that's something we should be doing something about. The landfills around here, it's just crazy the amount of waste that we produce. |
| I think it shows you what happens to the stuff that you do waste. I think it brings it home quite well actually. I see it in my house, taking the bin out, the food that goes to waste, and the other crap. You fill the wheelie bin every week. |

# B7

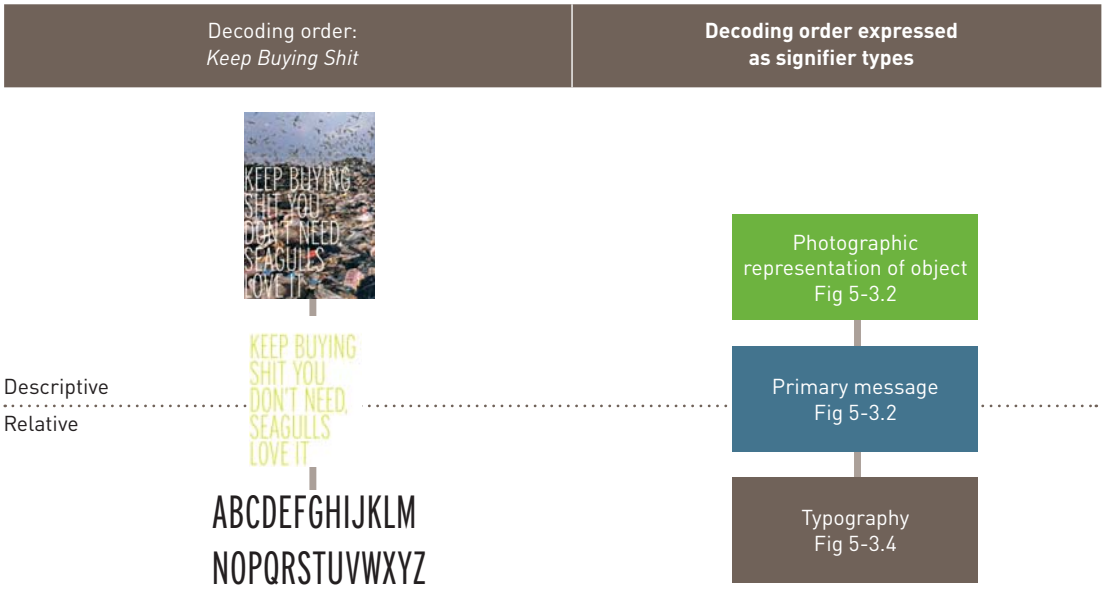


Figure 8-7. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by B7 viewer based on order of utterances in Table 8-9

Table 8-9. Decoding: utterances of B7 viewer about visual artefact 1: *Keep Buying Shit*

| **B7:** *Keep Buying Shit* **utterances** |
|---|
| Probably because it looked really messy, but now that I'm reading the message on this, it actually appeals to me more than the last one... because when I read the message, because it's not that clear, when you actually read the message you think "Yeah". |
| Because it just looked really messy and confusing, like the other one was nice and sort of clean and easy to read.. as I said, very corporate, whereas when you actually read this though you think "Yeah". |
| Well, I actually think there's quite a lot of truth in it. You know, you keep buying shit you don't need and seagulls love it, because this is where all our rubbish, all the waste, all the things that we don't really need but we buy anyway because we like them and then we end up throwing them out because we wanna buy new stuff. |
| Well, I think what it says is what I like about it, and when you look at it closely it's pretty realistic, those huge waste dumps. |
| This is actually more personal, and I also think that the ploy of not having big bold writing, even though the type is large but it's not really bold, makes you go close and read it. If it had the big wide set type then you could read it from a distance and it wouldn't have quite the same impact but to me, you have to go closer to it. |
| *Did you read the message, the first two times we looked at it?* No, I didn't. |

# B8

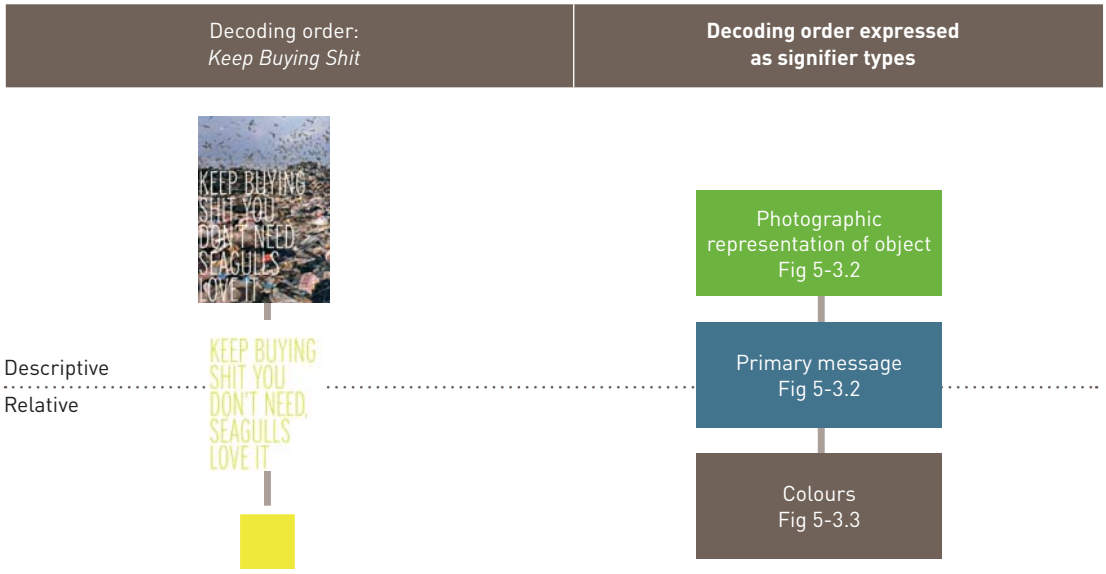


Figure 8-8. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by B8 viewer based on order of utterances in Table 8-10

Table 8-10. Decoding: utterances of B8 viewer about visual artefact 1: *Keep Buying Shit*

| **B8:** *Keep Buying Shit* **utterances** |
|---|
| I least like this one. |
| The one with the seagulls. |
| I still haven't been able to read it. I mean I've got good eyesight, but it's far too busy. |
| Just too much in the background. |
| It's going back to what I said before with blaming you for doing x y and z, where you might have only done part of it. |
| Yeah. Don't get me wrong, it's a fun way of expressing the concept. Like, the seagulls love it, and I think having the huge number of seagulls and stuff there as well, it might make someone question ok, well hang on, do I need to add one more item to that? |
| And the yellow is "on-trend". |
| The garbage trucks will keep coming, even if it is for legitimate wastes. But again, I don't know what the size of the landfill is. I don't know how that's changed over time, I honestly don't. So if Brisbane City Council said, "look, our landfill used to be this big ten years ago, but it's now this big," and showing the increase that way, you might actually take a step back and say, "yeah we are throwing more away." |
| Yes, again that's back to the infographic part, where you could see that being something saying |

# B9


Figure 8-9. Decoding: order of reception of visual artefact 1: *Keep Buying Shit* signifiers by B9 viewer based on order of utterances in Table 8-11

Table 8-11. Decoding: utterances of B9 viewer about visual artefact 1: *Keep Buying Shit*

| **B9:** *Keep Buying Shit* **utterances** |
|---|
| One of the things I think is a core problem is we go through too much packaging. We don't recycle, or we don't enough. There's too much waste. I'm just trying to think of the words. We've got a waste oriented society. You know, you look at TV screens, and you go to a dump and there's all that sort of stuff. The stuff that should be, people should make, you know reliable and last. I know technology changes so rapidly and it's hard to do that but I just see it as a wasteful type of society. |
| It makes me feel annoyed and frustrated. Frustrated that, in a couple of ways I suppose. Frustrated that I think there's probably a degree of laziness, in a certain amount of people who don't even consider that this is having an impact or doing anything to stop it. And then, some degree, that I'm part of that as well. I mean, I make an effort not to be, but to some degree I still am. |
| It's easy to visualise and understand it. |
| I think the text is probably a bit lost on the rubbish type. Personally, I would think most young people could relate to that. The way it's said *Keep Buying Shit* is probably a bit, something that they would find probably a little appealing, in some type of way. I think it's pretty blunt and it just says it, which is good. I like it. |
| It has a little bit of a joke about the seagulls, so it's a bit comical as well. It's having a go at you but it's bringing you in as well, if that makes sense. It's saying "You're buying shit", but it's still having a joke that we all probably do. |
| I think it's pretty blunt, it's pretty frank. It's got a nice little punch, it's got a nice little pun about the seagulls, yeah. It's good, nice message. |

## Appendix P Order of viewing for visual artefact 2: Apology from the Future

Viewers were asked general questions about each visual artefact. The order in which they referred to each signifier was identified in the transcript and expressed using both visual representation and the types of signifier found in "Table 5-1. Typology of signifiers in visual artefacts" on page 81. The point at which discussion turned from descriptive to the subject relating to personal experience is marked.

# L1

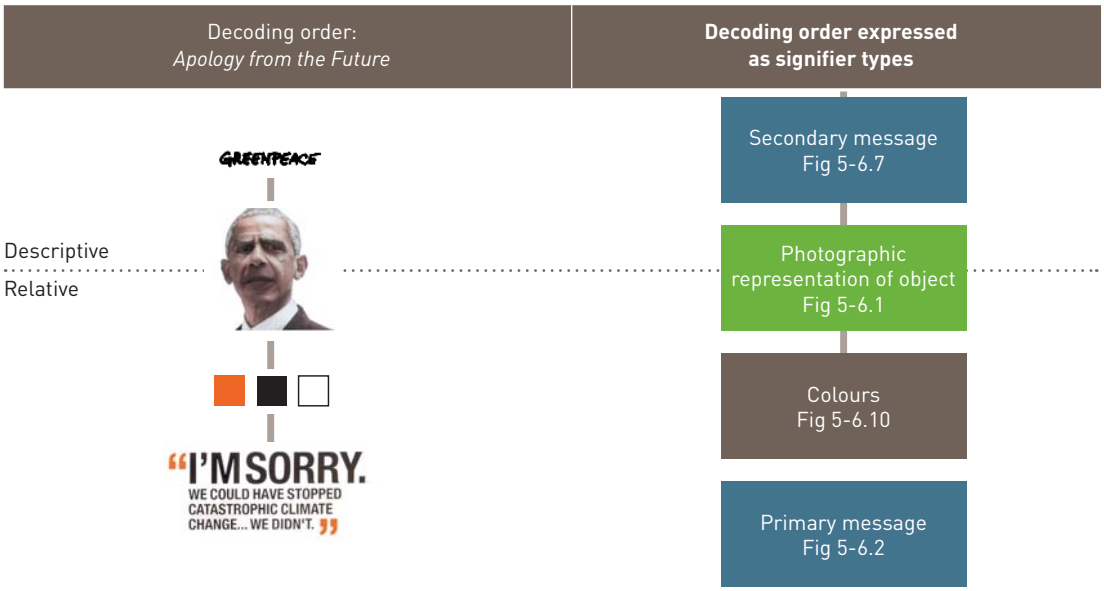


Figure 8-10. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L1 viewer based on order of utterances in Table 8-12

Table 8-12. Decoding: utterances of L1 viewer about visual artefact 2: *Apology from the Future*

| **L1:** *Apology from the Future* **utterances** |
|---|
| Whereas this one, it's obvious. Greenpeace have got their name in it. They've obviously got a vested interest, but they're being more open and honest. |
| Disappointment in our political system as an ongoing thing. |
| I like the colours. I like the fact they're using people that ultimately have the sort of aye or nay. They're the decision makers in regards to the hierarchy side of things. I like that. It's sort of reaffirmed that they're accountable for this, as well as us. And I like the whole I'm sorry thing, because you don't really hear that an awful lot from a politician so it's interesting. It draws you in. |

# L2

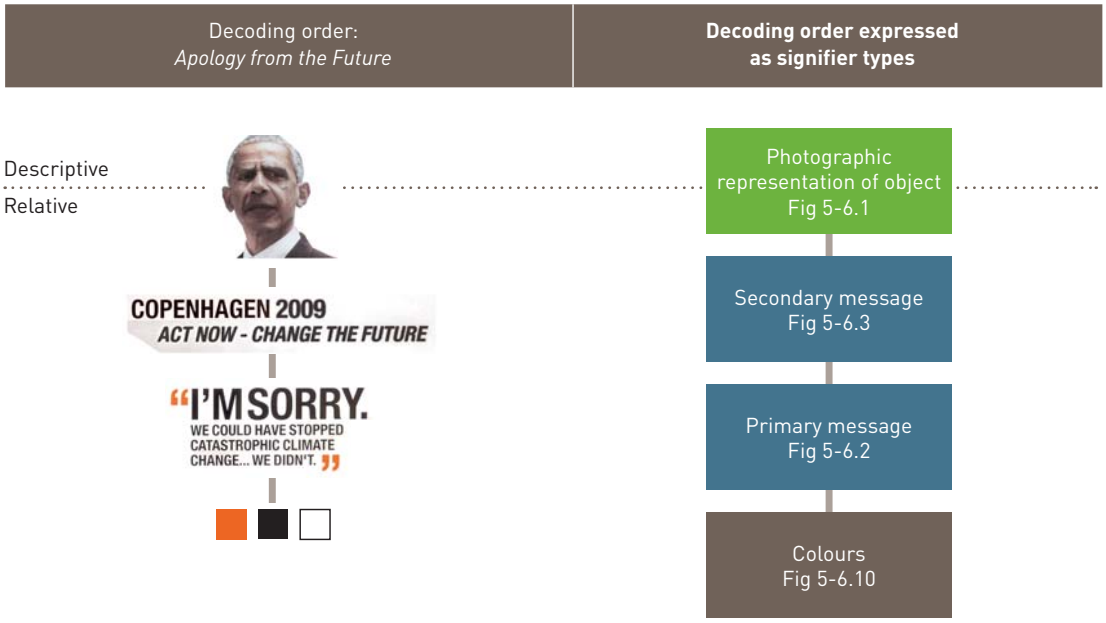


Figure 8-11. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L2 viewer based on order of utterances in Table 8-13

Table 8-13. Decoding: utterances of L2 viewer about visual artefact 2: *Apology from the Future*

| **L2:** *Apology from the Future* **utterances** |
|---|
| Let's talk about Obama. |
| It's not a very flattering picture of Obama. He looks really old. Is he meant to? |
| They aged him? |
| I like it. I think it's an interesting angle. It makes me kind of annoyed. Not at the advert, but at the world leaders. I think it's a pretty stark statement of the truth. It makes me kind of annoyed at the inaction of the people who are meant to be leading the movement. In terms of the images themselves, it just makes me think Barack Obama looks old or he's not going to age well. |
| I mean, in the sense that I don't think Angela Merkel or Barack Obama could stop it. But it matches how I feel. |

# L3

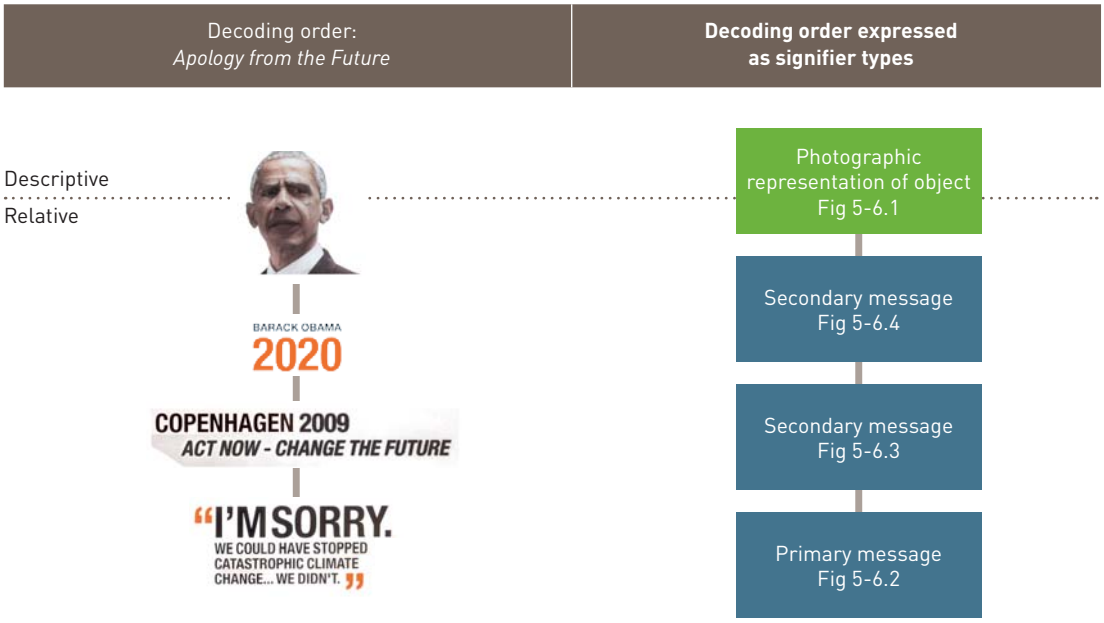


Figure 8-12. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L3 viewer based on order of utterances in Table 8-14

Table 8-14. Decoding: utterances of L3 viewer about visual artefact 2: *Apology from the Future*

| **L3:** *Apology from the Future* **utterances** |
|---|
| I've got mixed feelings about this one, because I think it's political. I think that recently I've just gotten tired about the whole of politics and all those talks and all those kind of things. But at the end of the day, you know that these people are very powerful people that can help introduce laws or change the laws or ban some laws. And obviously this is to do with you've got leaders like Barack Obama and Angela Merkel, which means they're not only European leaders but world leaders. |
| But I wouldn't say it's that strong, as strongly forced as it should be. I don't know. It kind of makes you think about the future. It does have an impact. Because it talks about 2020. It was 11 years later. When people think about what's happening now, they don't necessarily think about the future. I think the slogan is quite good, because you talk about my current actions will have an impact on the future. No, this one. Act now and change the future. |
| I think it's quite moderate in the sense that the first one was very disturbing and the other one used really strong colours. There was kind of a colour play. |
| But the focus is on words rather than the on the face of the person saying that. |

# L4

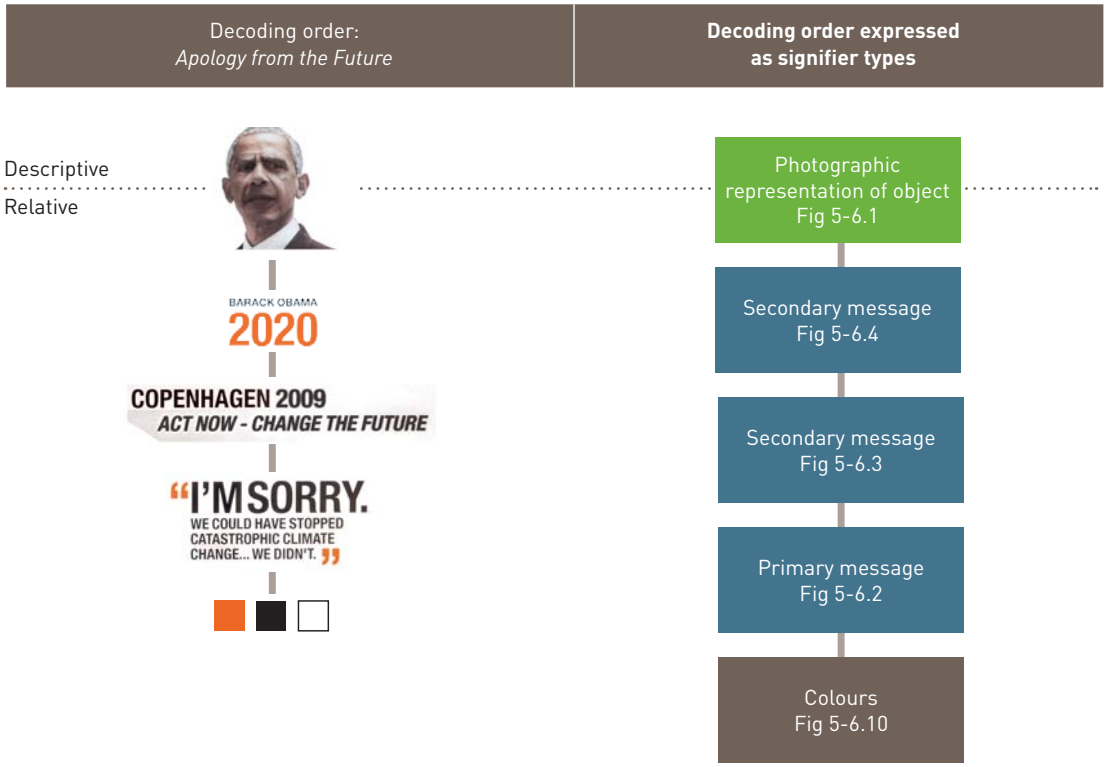


Figure 8-13. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L4 viewer based on order of utterances in Table 8-15

Table 8-15. Decoding: utterances of L4 viewer about visual artefact 2: *Apology from the Future*

| **L4:** *Apology from the Future* **utterances** |
|---|
| I think because it didn't have a human element on it. The other one obviously had Obama's face on it... |
| Whereas I think with the one with Obama, you're then sort of wading into the political aspects of climate change. Which is okay, but you could end up going down a political route specifically. |
| What's the 2020 bit? |
| Okay. I get it now, sorry. I thought he was saying they could have stopped it in 2009. |
| Because now that I look at it from the other angle in terms of he didn't say that in 2009, they're predicting what he might say in 2020. I wouldn't say it specifically makes me want to act now. Because I feel like I kind of believe what these people are saying when they've done their previous talks about what they're trying to do about it. And I don't think they would allow the situation to have gotten that bad that they're completely – I don't know. It's a weird one. |
| It looks very BBC, like a news story type. |
| I think because they're trying to predict the future, I almost don't like that. I think it's a little bit unfair on the politician to have put that. |

# L5

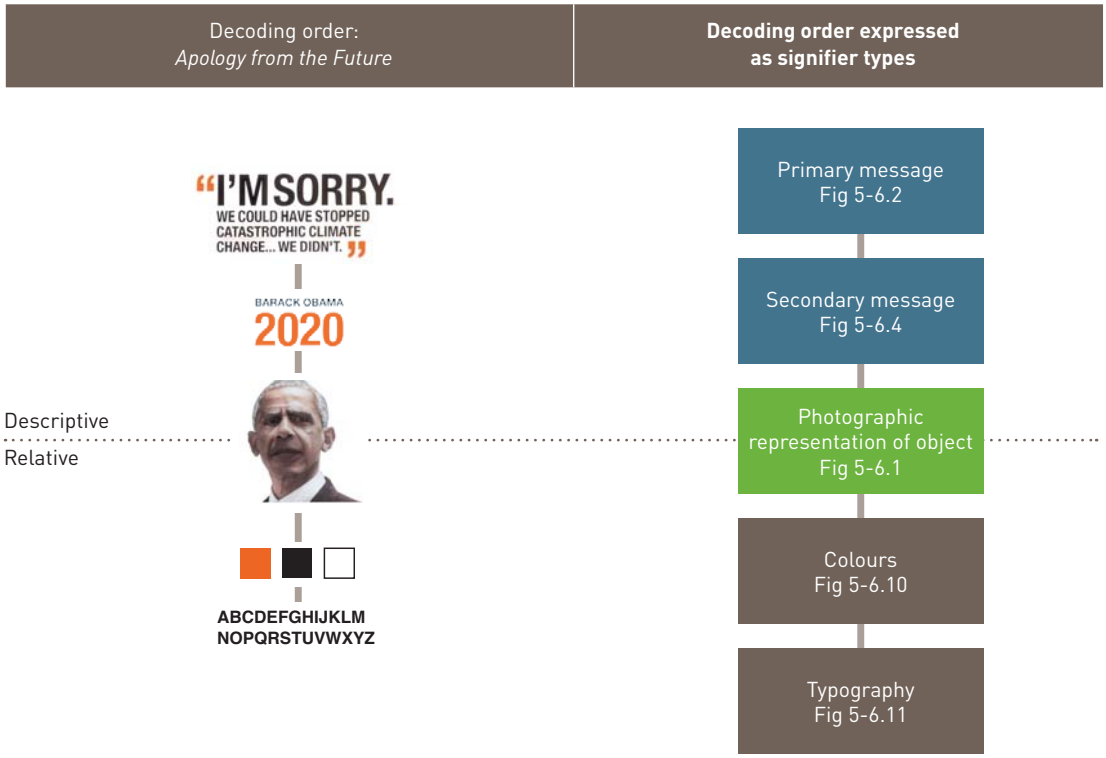


Figure 8-14. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by L5 viewer based on order of utterances in Table 8-16

Table 8-16. Decoding: utterances of L5 viewer about visual artefact 2: *Apology from the Future*

| **L5:** *Apology from the Future* **utterances** |
|---|
| That one says I'm sorry and then we. Because I'm editorially minded.. [points out perceived grammatical error] |
| Why does it say 2020? |
| Oh I see. So that's supposed to be a quote in 2020 looking back? That's not massively clear. |
| That's Angela Merkel, is it? That's a bit mean. They've made her look a bit older. I didn't really notice that he was six years older. She looks about 20 years older. |
| I get instantly what it means. I as a leader of a nation, an influencer of other nations, could have done something. As I didn't, and no one else did, it's not gone according to plan and we're all in trouble. So I get that. |
| What made me look? Because I recognised the face. And there's a big I'm sorry in black and white, which is well done. It does stand out. And there's an element, I think, I probably more naturally go towards the one with a human emotion involved probably. Funnily enough, that one, maybe because you just explained or I finally picked up on what 2020 meant. I didn't really get it with that, but that one. Maybe just because it's kind of whiter and more. |
| I think Barack Obama one is more so, because Angela Merkel does look like she's been affected by the environment. She does. It looks like they're trying to make a point of the fact that she looked really worn by the whole thing, which I don't think is realistic. I think she'll just be sorry about it and wish she'd done something else. |
| As if I'm living in this world and they could do something about it and they didn't. Yeah, it's pretty direct. |
| No. It's kind of – no. It's quite negative. I'd say it's quite negative. If anything, I probably should maybe feel a bit more passionate about it, but it's not something that makes me angry. But I would look at that and think – if I was more inclined to be that way, I'd feel a bit angry about it. Think, well you need to do something. Like, sort of, email my MP or whatever. But to me it's quite strong, fairly sort of negative, but it's more likely to make me a little bit angry rather than anything else. |

# B6

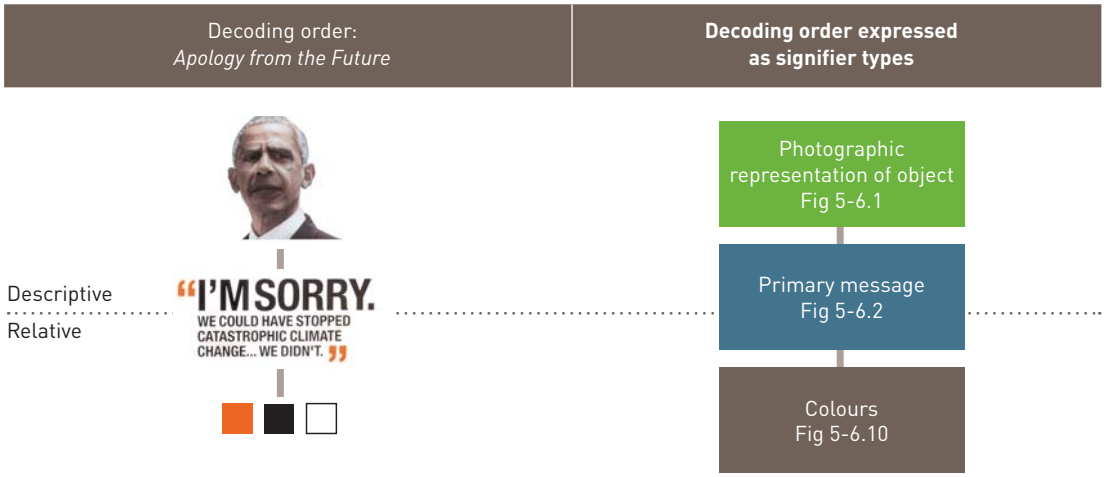


Figure 8-15. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by B6 viewer based on order of utterances in Table 8-17

Table 8-17. Decoding: utterances of B6 viewer about visual artefact 2: *Apology from the Future*

| **B6:** *Apology from the Future* **utterances** |
|---|
| Oh, probably Obama's face, and the "Sorry" stands out for me, I think, yeah, there's nothing he could have done. What are they getting at there? You know what the colours actually look like, that looks like BHP. |
| To be honest, it does irritate me because I don't think anyone can do something about it. I think we can have an effect on what we do but I still don't think there is a catastrophic climate change that we could have prevented. |
| I don't think it gives me hope. For me, it is all down that one path of "Yes, it is our fault and we should have changed it". I like a bit of history and a bit of geology and geo-science type of thing and you can see where we've been through cycles over thousands of years and millennia. We've got ice core data that shows this has happened. Unrelated to what we're doing now, we certainly can see that what we do has an effect on it, but it's a marginal impact, I feel, that we've had. I don't know, I just think that that is a completely one sided opinion of it. |

# B7

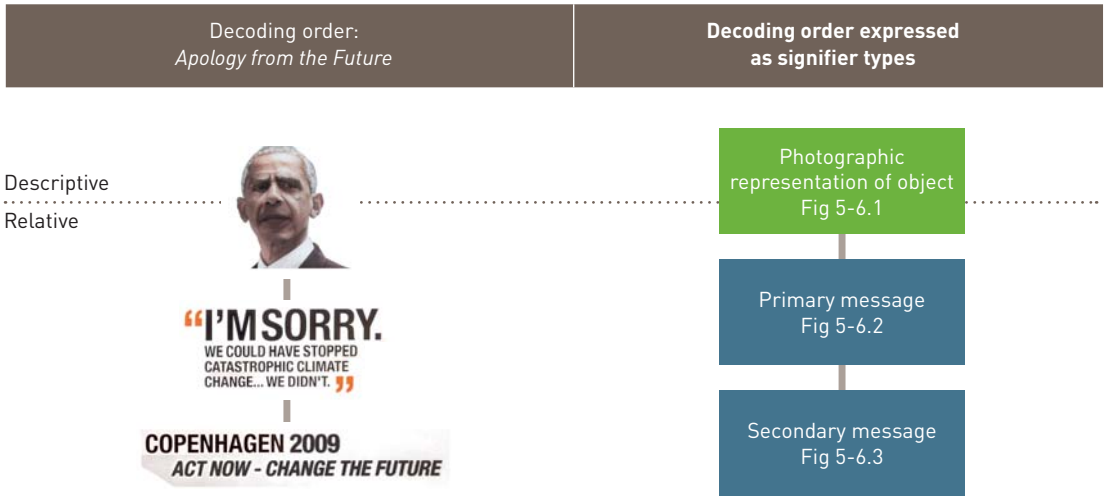


Figure 8-16. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by B7 viewer based on order of utterances in Table 8-18

Table 8-18. Decoding: utterances of B7 viewer about visual artefact 2: *Apology from the Future*

| **B7:** *Apology from the Future* **utterances** |
|---|
| I think, maybe because partly, and it's from that particular billboard it's Obama, and he is quite a charismatic person, so if he gets up to say something, even if you're not a democrat in America, you probably would listen. |
| I didn't see the whole inauguration but I think he is quite charismatic, he's an amazing orator, so yeah, you would take note, and everyone knows him. If it was the President of a country in Africa or something that we don't know, then possibly not, I would... |
| I think, at a glance, I'd be looking to see what he's sorry about, the way it says "I'm sorry", so you'd think "OK, what's he actually talking about". Probably not as emotive as the last one of the rubbish dump. The other thing that is interesting is the stance, the way that they actually show his face, it's almost a little bit distant. It's not until you look at it quite closely you realise that they've actually aged him. |
| I wouldn't say that I dislike anything, it's quite straightforward when you read it, what you'd want to know is how he could've changed things. I don't know, they weren't really that interested in doing anything, were they, back in 2009, America, were they? |
| It's a little bit corporate and it looks like they've really enhanced his face, so the focus is on him and then what he says. But, it doesn't sort of evoke any kind of emotion... |

# B8

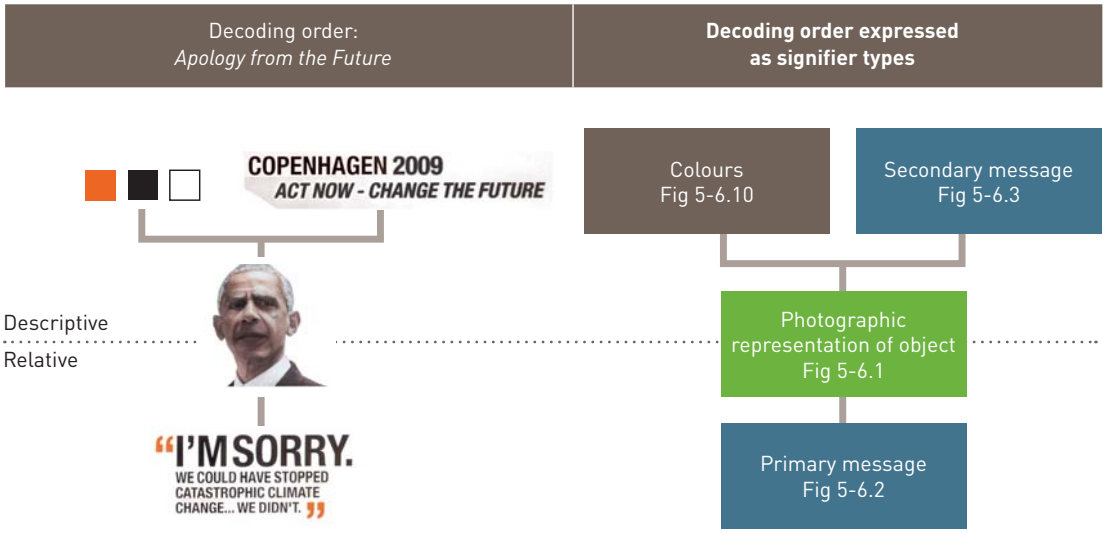


Figure 8-17. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by B8 viewer based on order of utterances in Table 8-19

Table 8-19. Decoding: utterances of B8 viewer about visual artefact 2: *Apology from the Future*

| **B8:** *Apology from the Future* **utterances** |
|---|
| I don't know if this is how it's been, the colours or whatever, but the change of future bit, the "act now" is almost invisible, but I think that might be how it's presented. |
| Personally, it's anger towards governments for failing to actually do anything, even to now I don't think governments have done anything. But, I think that's also because I want to see the collective change. It's not just one country, I think also there shouldn't be excuses made for different countries, so, you know, if you're a developing nation there shouldn't be excuses there. Ok, they're exempted from change because there's an awful lot of foreign investment there, you know. You can't say that our clothes aren't being made, you know, purely to make profits for companies but they're being made in third world countries, but you can't sort of exempt them and say, "well, you don't have to abide by these, things that we want to do because you're developing." And I think there could be far more political pressure on, you know, the likes of China. The imagery is that they're spewing out fumes with, you know, coal-fired power stations, but then again, we're still using it here. So, who are we to say, "no, don't do that" if we're doing it ourselves. |
| I don't think any one government could have stopped it full stop, but they certainly could have taken action towards it. It does resonate with me in that these are the "heads of" that I kind of blame. |
| The imagery's good, in terms of putting a bit of age on them. |
| I think that's more because I see this as being corporate. |

# B9

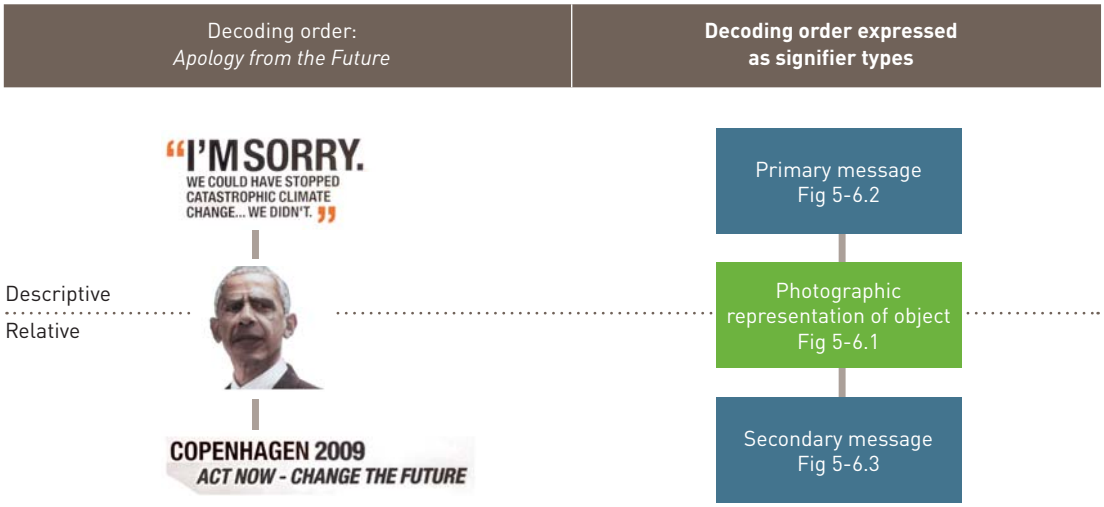


Figure 8-18. Decoding: order of reception of visual artefact 2: *Apology from the Future* signifiers by B9 viewer based on order of utterances in Table 8-20

Table 8-20. Decoding: utterances of B9 viewer about visual artefact 2: *Apology from the Future*

| **B9:** *Apology from the Future* **utterances** |
|---|
| I quite liked this as well. I think the message that we could've stopped it and we didn't, the whole "I'm sorry" similar to what... It implies that we know better and we're not doing anything about it which I tend to believe to be a valuable... I think all the politicians know generally speaking that this climate change is happening and most of them don't really see that they're doing strong things to change that. I can quite easily relate to them saying "I'm sorry" in the future. |
| It's obviously powerful, with Obama there, the text is appealing, I can relate to them saying the text, and it's pretty short and sweet, it's not a whole brainwash or anything like that. It's pretty short and sweet. Going with that guy comes across as a powerful message, so it's something you can see happening in the future, someone saying that. It's a realistic phrase or comment that we're likely to see, brings in the Copenhagen, so you know that these people are all coming together who have that power and you get that from just seeing the bits and pieces. |

## Appendix Q Order of viewing for visual artefact 3: The Consensus Project

Viewers were asked general questions about each visual artefact. The order in which they referred to each signifier was identified in the transcript and expressed using both visual representation and the types of signifier found in "Table 5-1. Typology of signifiers in visual artefacts" on page 81. The point at which discussion turned from descriptive to the subject relating to personal experience is marked.

# L1

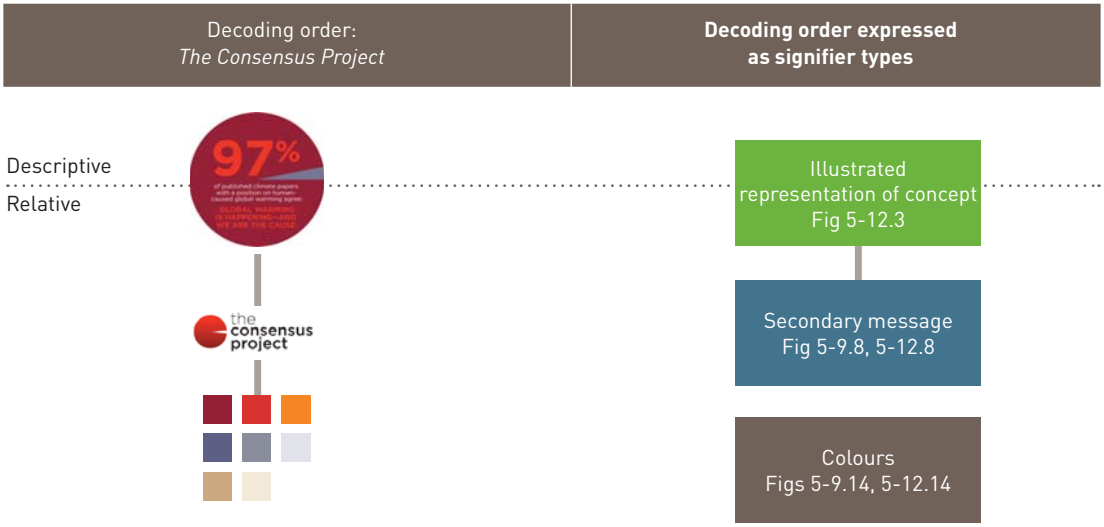


Figure 8-19. Decoding: order of reception of visual artefact 3: *The Consensus Project*signifiers by L1 viewer based on order of utterances in Table 8-21

Table 8-21. Decoding: utterances of L1 viewer about visual artefact 3: *The Consensus Project*

| **L1:** *The Consensus Project* **utterances** |
|---|
| That page [Figure 5-10] is more interesting than that page [Figure 5-7]. That page has got more information to drawn me in, whereas this one – no. It doesn't sing to you, does it? Not really. |
| There's no engagement with it. The second page is more interesting, but there's no emotive kind of response to it, which I suppose is how I roll. |
| I like the clarity of the big circle with the 97 per cent on there. Because again, it's in your face and very clear. It grabs your attention and then you can go in and find out more. Whereas the rest of it is kind of very mish-mash. You have to take time to be able to sit down and read it. Which again, given the importance of the subject matter which we all should pay more attention to, perhaps it's a bit more towards capturing somebody who is more into that side of the thing, rather than somebody starting out on the journey. If that makes sense. |
| Although it talks about statistics and what papers are doing, sort of scientific papers are doing, it doesn't relate it back to individual's culpability. |
| Well, it does say the Consensus Project at the top, but I don't know who they are. Again, I don't know who the people are that are driving that. |
| I wouldn't necessarily trust it because there's a lot of statistics in there, there's a lot of information in there. The previous one is very simple. There's no hidden agenda. Whereas this one would appear to possibly have a hidden agenda with regards to who is driving it. Whereas the other one just looked like it was an interested party trying to help. |
| Interesting choice of colours... It's just kind of a cross between McDonald's and Sainsbury's. It's just a bizarre choice of colours. |

# L2

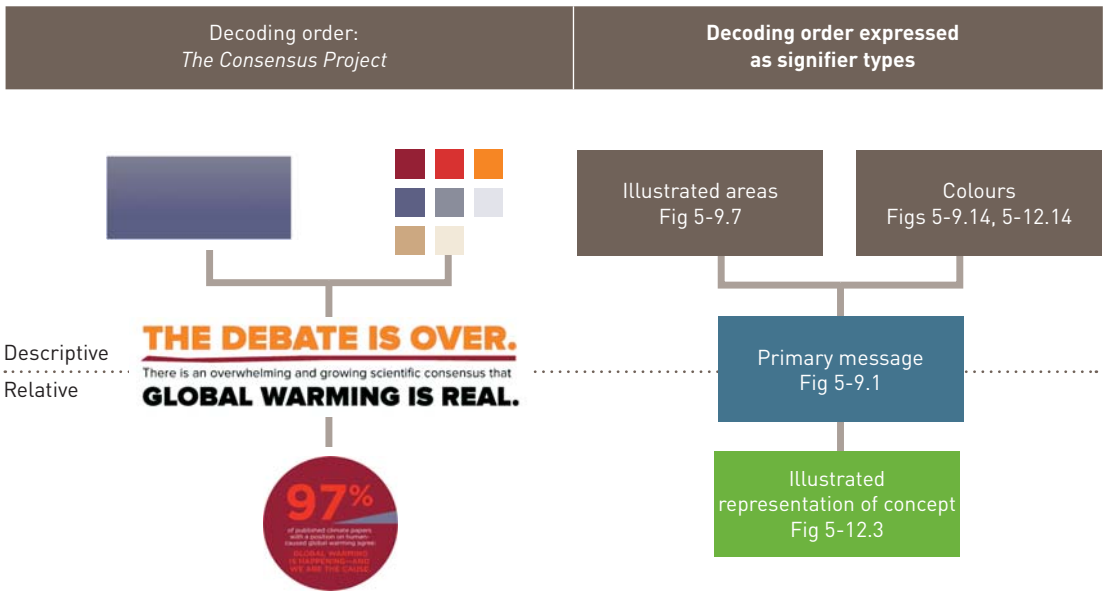


Figure 8-20. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by L2 viewer based on order of utterances in Table 8-22

Table 8-22. Decoding: utterances of L2 viewer about visual artefact 3: *The Consensus Project*

| **L2:** *The Consensus Project* **utterances** |
|---|
| It's big blocks that aren't even particularly good colours. Your eye is drawn to the debate, but you don't really look at the rest of the stuff. |
| I feel like it's kind of shouting at you, isn't it? The debate is over. Global warming is real. For a start, it's not global warming. It's climate change. |
| Because it was traditionally called global warming, but because the effect of the climate warming everywhere was cooling in some places global warming is inaccurate. That's just the nerd in me. If you call it something like global warming, you do give people a lot more opportunity to argue against you. Because people are getting more extreme winters. That's not evidence of a warming planet. |
| But then I don't feel like it's offering them any particular solution, you know? |
| Yeah. It matches my knowledge of climate change. It matches my experience of reading papers on climate change. Like, finding a paper that's anti-climate change is pretty tough. |
| No. I feel like they're using quite horrible colours. I feel like this orange and red thing – maybe they're trying to show warming using warm colours. But this red? It's not pleasing to the eye. You have to struggle to read it. |

# L3

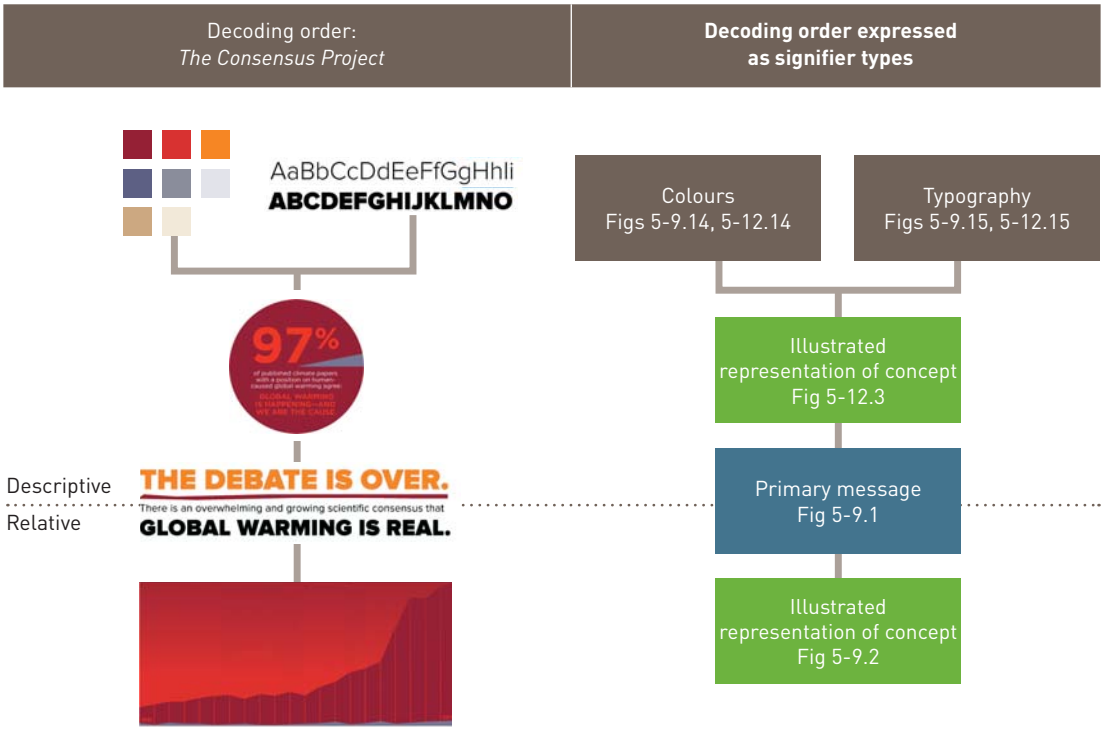


Figure 8-21. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by L3 viewer based on order of utterances in Table 8-23

Table 8-23. Decoding: utterances of L3 viewer about visual artefact 3: *The Consensus Project*

| **L3:** *The Consensus Project* **utterances** |
|---|
| This one really puts you off. For some weird reason, I can't concentrate on this page. I don't know if it's the colours. I don't know if it's the font. Because usually simple things appeal to me. But for some reason, it doesn't really talk to me. I don't know. Maybe it's the message that is wrong. I think it's the wording, to be honest. Because when you're looking at the second page this is more interesting. This is more aimed at people that love scientific background to it. And kind of facts and data, and all those kind of things. I would expect something like that to be showing in The Economist or Financial Times, something like that. Maybe not Financial Times because it talks about global warming, but similar types of things. |
| To be honest, it doesn't send that strong message to me. I don't feel instantly irritated or upset about it. It kind of tells me, yes, there is something wrong. It kind of makes me want to read more about it. But I would be able to formulate my opinion more if I actually read every single word that is on that infographic. |
| I know it is a bit simple. I think it links to the fact we really have to absorb a lot more information now than we had to before. But, at the same time, to be honest some people don't care about scientific problems. To me it's a bit like, so what? Because we're talking global warming. We're talking direct impact of our actions. |
| Well, it tells you that you're the cause. It tells you that you're the cause, but I don't know. I don't think so. I think the evidence is there, but it's scientific evidence. You can't see that direct picture, this is what you've done. You have to pay for it. |
| The other one [referring to this artefact] used really strong colours. There was kind of a colour play. |

# L4

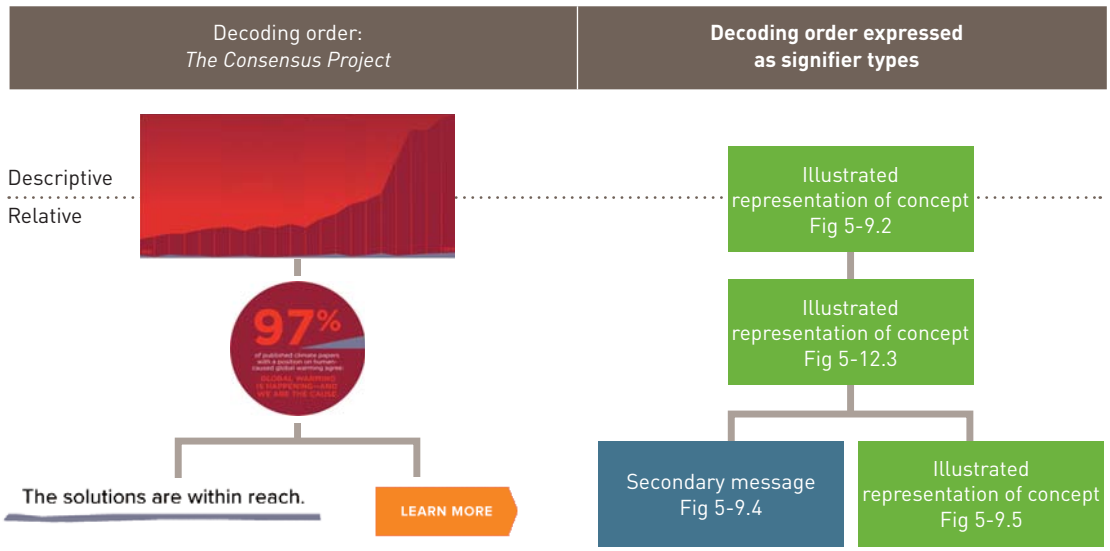


Figure 8-22. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by L4 viewer based on order of utterances in Table 8-24

Table 8-24. Decoding: utterances of L4 viewer about visual artefact 3: *The Consensus Project*

| **L4:** *The Consensus Project* **utterances** |
|---|
| I think because it didn't have a human element on it. The other one obviously had Obama's face on it, whereas this looked a little bit drier because there wasn't really much to go on. It was just a graph... But I just felt that this one was a little bit drier. There wasn't anything for me to start on. Whereas the other two there was. This one looks like, it's just another graph. I look at those quite a lot anyway. I'd rather look at something else. |
| Although I said it didn't really resonate as much, when you look at that, it is quite worrying. I'd say the trend is quite worrying from the level it was going up to obviously how it's going up in the last couple of years before 2011. |
| So it's saying 97 per cent of published climate papers with a position on human caused global warming agree. Global warming is happening. We are the cause. I think it's a difficult one because I wouldn't say that I'm fully decided on whether it is really bad and it's a human thing, or if it's more other factors behind it. You can't deny the fact that the ice caps are melting. You can't say that's not happening, because it is. |
| Yeah, flat graphics and that sort of thing. I come against that stuff with my day to day job. But I don't know. I feel like it would need some more pictures or something. |
| Because, well, although it's obviously got the bit about being human, it doesn't – whereas the other one was sort of saying, we're throwing away too much rubbish. I can't see anything here about specific activity that they're talking about. It's more the solutions are within reach. You might be able to find out some more there. |
| I think if you were able to see real stats on the picture it might be more compelling. |
| There wasn't anything for me to start on, whereas the other two there was. This one looks like it's just another graph. |

# L5

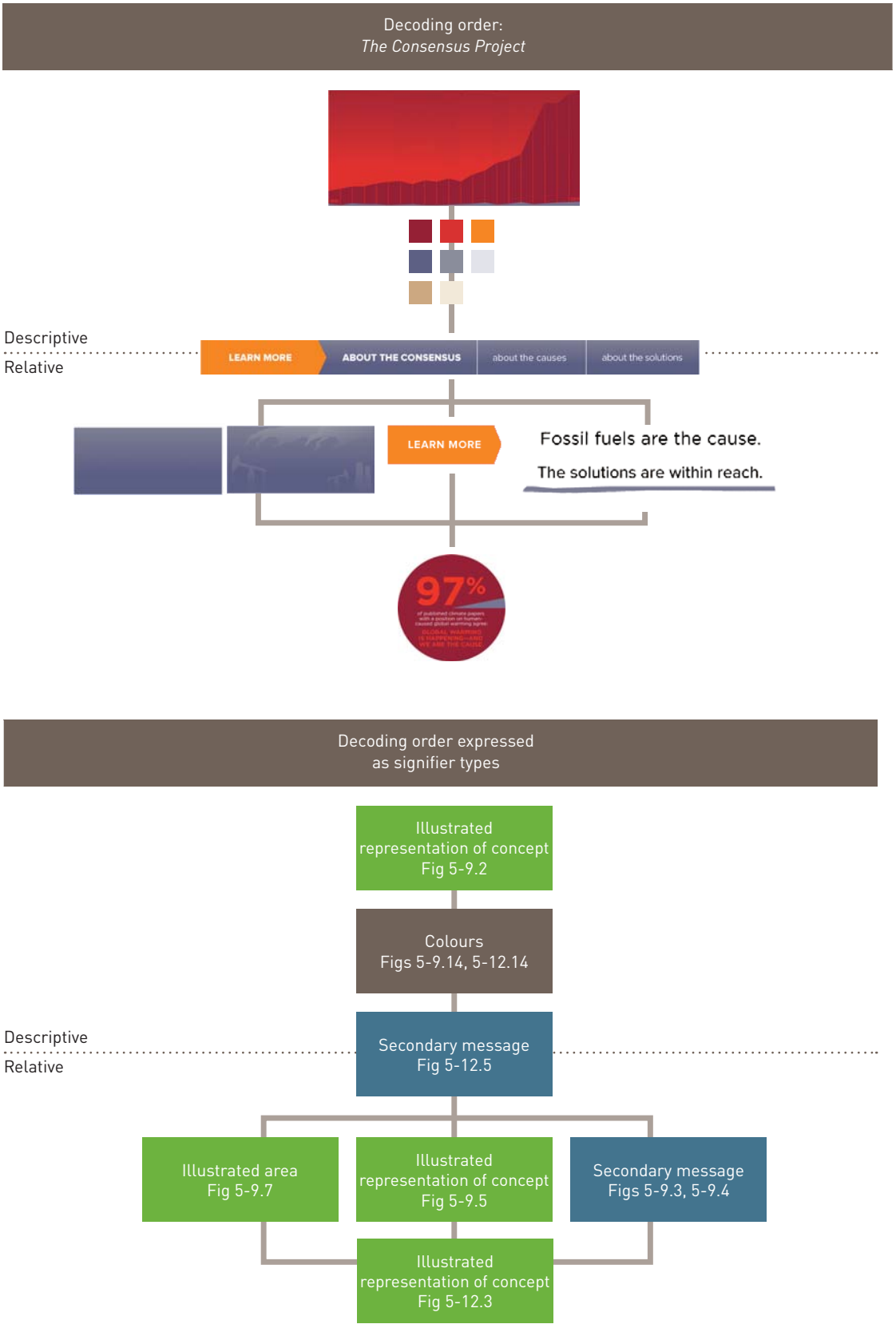


Figure 8-23. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by L5 viewer based on order of utterances in Table 8-25

Table 8-25. Decoding: utterances of L5 viewer about visual artefact 3: *The Consensus Project*

| **L5:** *The Consensus Project* **utterances" utterances** |
|---|
| I'll have to read more than the other ones before the impact is understood. I wouldn't really know which of those to click on. |
| Because that should be in there, and that kind of should be in there as well. Or that should just be by itself underneath, without that one. It's just a little – I don't understand what the graph is. I have no idea what that means. I can guess. You know, how much sea levels are rising or ice is melting or something. I don't know. Heat is rising or something. I don't know, but it doesn't make sense to me. |
| I see. I see what it's doing. I think that's a clever graph, but I probably wouldn't have depicted it like that. You'd have to read quite a bit to understand what it's saying. But I totally – it's actually quite powerful. |
| That to me is quite well done, and I like the colours. I like the fact it's represented by a graph. But it's not clear enough. It almost needs to be like people saying, I don't know. People saying global warming is because of us, arrow. People saying global warming isn't because of us or is because of something else, arrow. Just make it really obvious. So make it almost – yeah. Learn more about the consensus? See, learn more about the consensus kind of is the same as well, to me. |
| I'd put the blue sections a little bit higher, just purely from what I said earlier. You do get the occasional person saying, oh, it's cyclical, blah-blah-blah. But I do think I'd believe that. But I just think you'd have to read a bit too much. But that's the kind of thing where, if I had wanted to find out what's going on and what the consensus is in the scientific community or whatever, I'd go there and I'd be interested in it. But if I'd happened to cross that in an advert or someone said have a look at this, I'd be a little while understanding what it means. Although I can see that the research has clearly been proved and they're trying to portray it in a good way. |
| I think the reason why I don't 100 per cent believe it is because it doesn't say really who it's from. I can see it's the Consensus Project, but it's not saying 97 per cent and underneath that, according to this scientific journal in Australia or whatever. That's probably why. It's not obvious who has said it. |

# B6

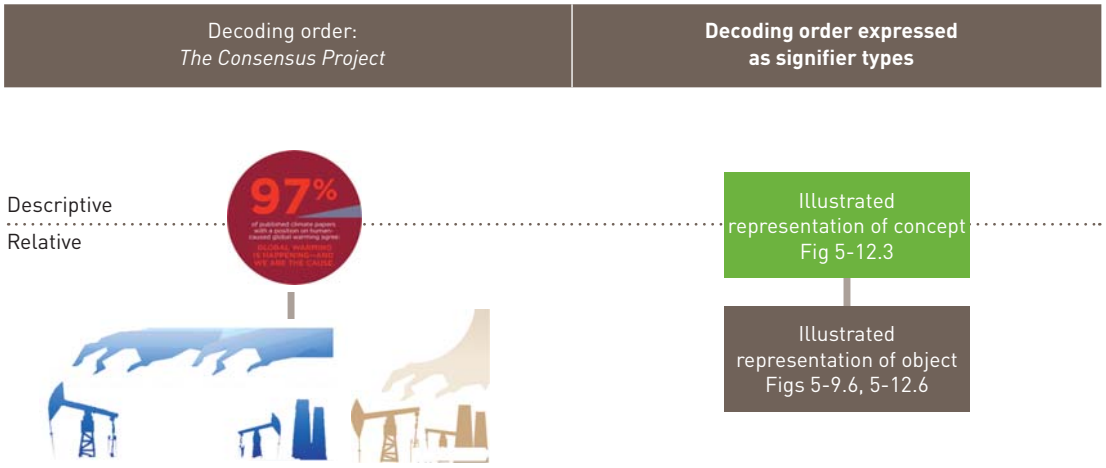


Figure 8-24. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by B6 viewer based on order of utterances in Table 8-26

Table 8-26. Decoding: utterances of B6 viewer about visual artefact 3: *The Consensus Project*

| **B6:** *The Consensus Project* **utterances** |
|---|
| ...this one is a bit more "What is going on here?" I need to read the text. |
| The other two are more emotion provoking I think, whereas this is more of a "I'm feeling, what sort of information am I going to get out of this?" |
| I'd agree that it's happening, yep. In terms of the ninety-seven percent, is that trying to get you to think that that's our contribution or is that, I know it doesn't mean that when you read it, but, hmm. Yeah, I don't think there's any doubt that it is happening, but what is that really trying to say. The papers conclude that, yes. Global warming's happening, yes, we are the cause, we contribute, yes. |
| It's like a Powerpoint presentation, too much information on it. |
| It seems to be more for a formal presentation as opposed to an advert or something to get your attention. |
| I suppose the oil well is a bit of a stand-out. Probably negative, depictive... a bit of blame. |

# B7

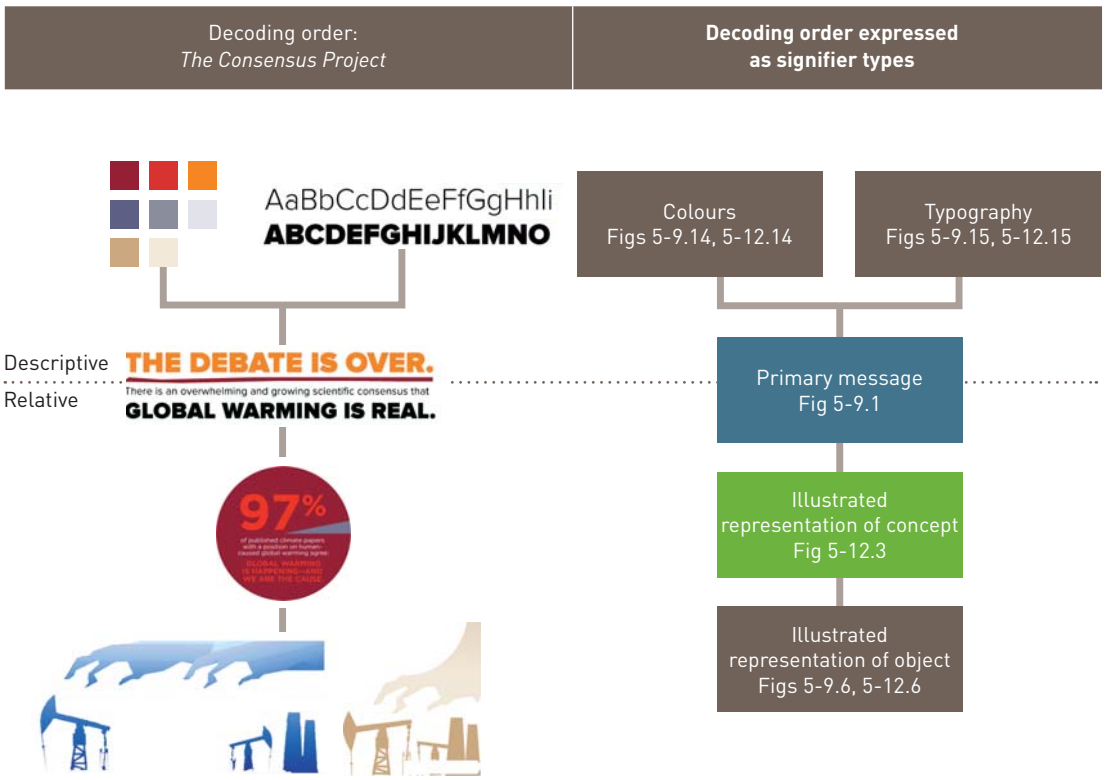


Figure 8-25. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by B7 viewer based on order of utterances in Table 8-27

Table 8-27. Decoding: utterances of B7 viewer about visual artefact 3: *The Consensus Project*

| **B7:** *The Consensus Project* **utterances** |
|---|
| I think the colour, the cleanness of it, it looked easy to read, and it's quite simple looking. |
| I have to admit, I'm a bit of a red person, so I probably noticed the red, so probably just the simplicity of it, and it's quite clean looking... I mean "The debate is over", it doesn't sort of trigger like what debate. It could be anything, you wouldn't know what it's talking about, unless you then go down to "The Global Warming is Real", but if you just read the top line. |
| I mean Climate Change to me brings vision of pollution in third world countries, and weather changes, so it doesn't really indicate anything like that. It doesn't indicate anything emotive. |
| Well, it's very simplistic looking, so it looks similar to maybe a corporate type of website, a corporate design. |
| What do you think about this statistic here? |
| Not very much actually. Ninety-seven percent and then it adds in tiny little print "as published", what does that mean? I think they throw statistics on everything and people don't know what they are. That could be ninety percent of a hundred people who have been interviewed. |
| Well, it looks like a corporate website, so it could be a corporation who are trying to justify their position. I mean, it's got the little oil wells down here, so to me that looks like it perhaps put out, could be someone like Texaco or Shell or... It doesn't look like it's a group of Green activists, there's no sort of emotion, and "We're killing everybody", you know. |
| I'd have to really read it and make up my own mind, but when they throw things like ninety-seven percent makes me a little bit sceptical, because it says of published climate papers. Well, that's just a throwaway line. |
| The other one was very vague, you know, ninety-seven percent of all Climate Change papers, well how many of those have been written. That's just a made up statement really, isn't it? |

# B8

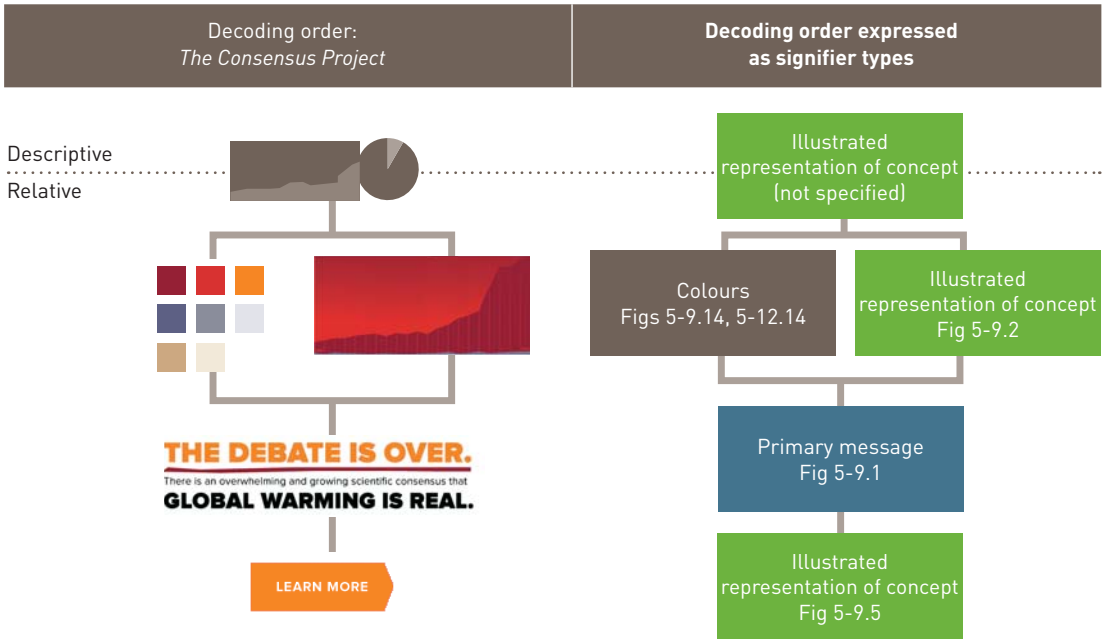


Figure 8-26. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by B8 viewer based on order of utterances in Table 8-28

Table 8-28. Decoding: utterances of B8 viewer about visual artefact 3: *The Consensus Project*

| **B8:** *The Consensus Project* **utterances** |
|---|
| The whole infographic thing appeals to me. |
| If I'm going to be educated, I've got to see the visual as well, it seems helpful, rather than just be, "read this". |
| I mean definitely with the red, it's that sort of doom aspect to it I suppose. But then also with the rising graph, without even looking, I mean I've only just spotted the years, but you always think of now as being in the middle and, ok, the future, something's happening ok? You know, what's happening? |
| I think there's been enough debate, there just needs to be action now. Some countries have proved that they can do it. If you think of wind farms when flying into Copenhagen, you know, that was a massive project but, at the same time individuals are flying in, individuals who still need to travel and aren't going to ditch planes, but at the same time that's one of the first things that they see when they fly into Copenhagen is this giant wind farm, you know, that sticks with people. I think also you look at Germany. Not necessarily the same amount of sunshine as us, but solar's huge there, you know, things could be done here. |
| Things change all the time, but I think it's clear, yet showing, you know, a decent amount of information, but also having arrows which are showing what's next |

# B9

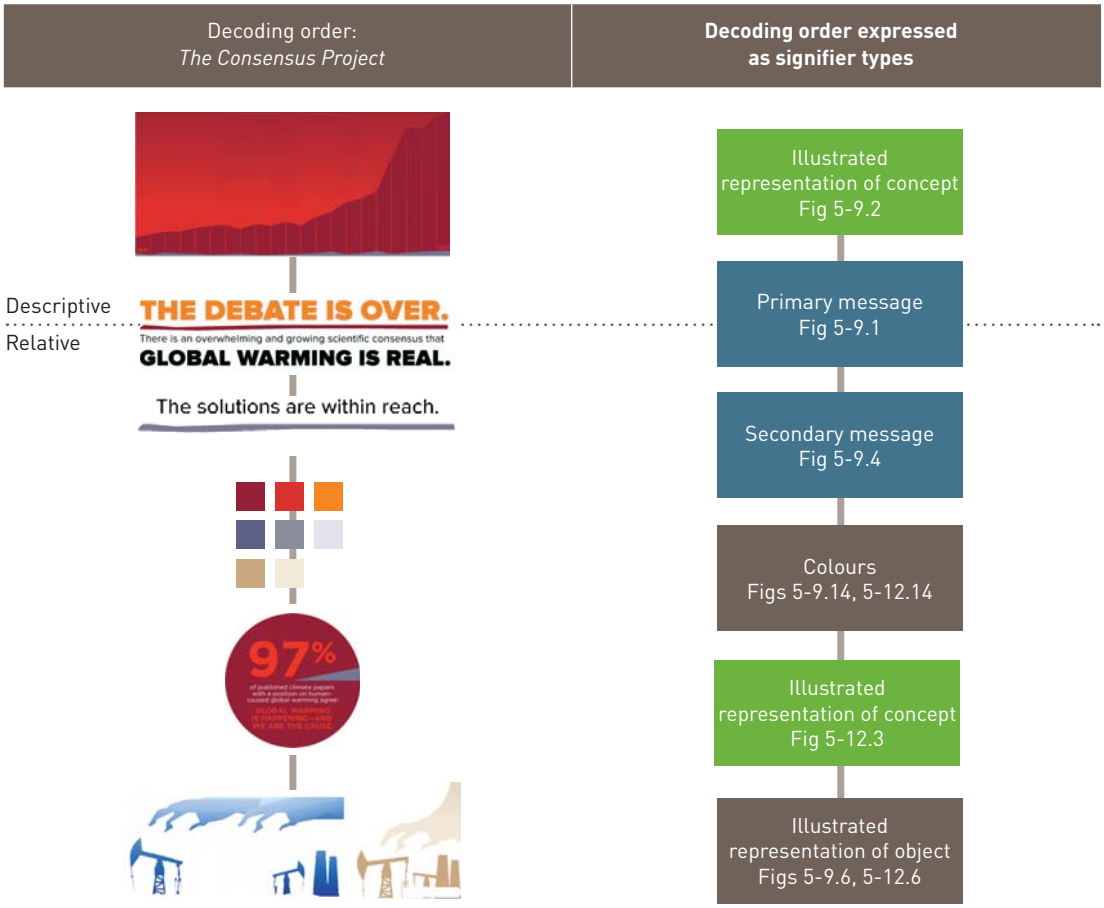


Figure 8-27. Decoding: order of reception of visual artefact 3: *The Consensus Project* signifiers by B9 viewer based on order of utterances in Table 8-29

Table 8-29. Decoding: utterances of B9 viewer about visual artefact 3: *The Consensus Project*

| **B9:** *The Consensus Project* **utterances** |
|---|
| Just the graph style appearance of it. The graph doesn't really tell me anything and it's just a graph, what is it actually, I don't even know what it's... |
| I guess, the debate isn't over, I know there's people who don't believe in it. Yeah, I guess that phrase is probably open for... When you look at it and you go "Well, debate is over", well there's probably people in the paper every week still talking about it. It's probably not as, doesn't deliver a message as well, I suppose, if that makes sense. I just think the graphic part I don't really want. |
| Oh, the only thing about the graph is the escalation part, that part you think well, yeah, I'm not sure about the dates, but the escalation part is everything's ramping up and getting progressively worse is ...just something that makes you realise that things are accelerating that way. There's a bit of hope I suppose, when you look at the bottom corner and you know the solutions are within reach, so there's a positive aspect to it as well. It's not all doom and gloom. You know, the red's obviously the global warming, the red, the hot sort of type thing. |
| It's interesting there's no green or anything like that. Does it match what I think? I don't think the debate is over. I think, well for me it is, I believe debate is over for myself, but don't think it is in terms of society. Same with the bigger picture, I don't think that's over. |
| That's interesting. The ninety-seven, the percentage of papers that are for it. I guess, then you start to think that's how they came to that conclusion. I guess, it's interesting to see that. I've never seen a figure like that. |
| I don't think it's going to drive people to do something different or oil wells or whatever... who's going to relate to an oil well,? So, you know, like "What am I going to do about the oil well?". Yeah, maybe you can relate it to stop driving your car, if you've got half a clue. |